SOLDIER'S HANDBOOK

OF THE

RIFLE

and SCORE BOOK for SPECIAL COURSE C

ARRANGED FOR

THE UNITED STATES RIFLE
MODEL OF 1917

EDITED AT THE

ARMY WAR COLLEGE

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SCORE BOOK FOR SPECIAL COURSE C

ARRANGED FOR

THE UNITED STATES RIFLE, MODEL OF 1917.

Prepared under the direction of
THE GENERAL STAFF, UNITED STATES ARMY,

WAR DEPARTMENT.

Document No. 698.

Office of The Adjutant General.

WAR DEPARTMENT,
WASHINGTON, *November 13, 1917.*

The following pamphlet, "Soldier's Handbook of the Rifle and Score Book for Special Course C," is published for the information of all concerned.

[062.11. A. G. O.]

BY ORDER OF THE SECRETARY OF WAR:

JOHN BIDDLE,
Major General, Acting Chief of Staff.

OFFICIAL:
H. P. McCAIN,
The Adjutant General.

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FOREWORD.

This handbook is intended as a guide for all soldiers of the Regular Army, National Guard, and National Army who are armed with the rifle, and should be used to supplement the instruction which they will receive in their organizations. The system and methods suggested are those which are used by practically every rifleman of note in the United States, and which are taught at the Infantry School of Arms. While there may be in some instances methods which are nearly as good, the idea has been to give to the soldier only those methods which are known to be the best, by observing which he will, in the shortest possible time, acquire that skill with the rifle which will permit him to take his place on the firing line.

The soldier must appreciate that his life and the lives of his comrades may often depend upon his ability to use his rifle with effect. Moreover, he is of little use to his country, but rather a burden, if he is not skilled as a fighter. In the last showdown the fate of the UNION depends upon the ability of its SOLDIERS to HIT.

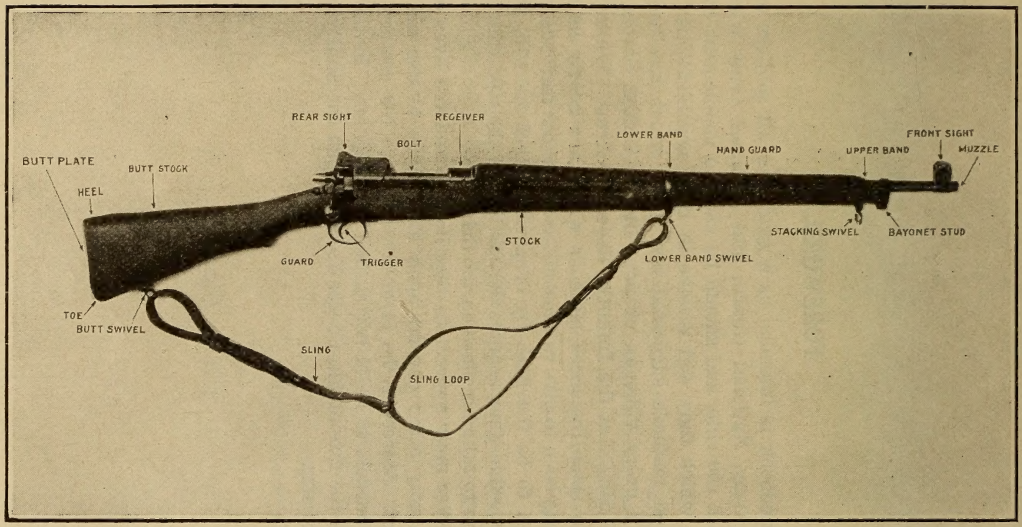


FIG. 1.—The United States rifle, caliber .30, model of 1917, showing names of various parts.

THE UNITED STATES RIFLE, MODEL OF 1917.

ITS DESCRIPTION AND USE.

The correct name of this arm is the "United States Rifle, Caliber .30, Model of 1917." It is sometimes called the Enfield rifle. It is a breech-loading magazine rifle of the bolt type. It is absolutely essential that every soldier armed with this rifle be familiar with the names of its principal parts, its operation, and its care. The instruction of the soldier in these matters begins the day that the rifle is first placed in his hands. When the rifle is first issued, it is usually covered with heavy grease, and it is necessary that this be thoroughly wiped off and the rifle lightly oiled. An oily rag should be kept to rub the rifle over with after each drill and exercise to keep it from rusting and to preserve its finish.

Nomenclature—The names of the various parts of the rifle are indicated in figures 1 and 2. In order that the soldier may understand his instructions, his manual of arms at drill, his rifle training, and be familiar with his weapon, it is necessary that he learn the names, location, and use of the following parts:

Muzzle.
Barrel.
Front sight.
Upper band.
Bayonet stud.
Stacking swivel.
Hand guard.
Stock.
Lower band.
Lower band swivel.
Sling.
Sling loop.
Receiver.
Chamber.
Bolt.
Extractor.
Striker.
Mainspring.
Sleeve.
Cocking piece.
Ejector.
Trigger guard.
Magazine.
Follower.
Floor plate.
Floor-plate catch.
Magazine spring.
Trigger.
Sear.
Safety lock.
Rear sight.
Battle sight.
Leaf.
Slide.
Small of stock.
Butt stock.
Butt swivel.
Butt plate.
Heel.
Toe.

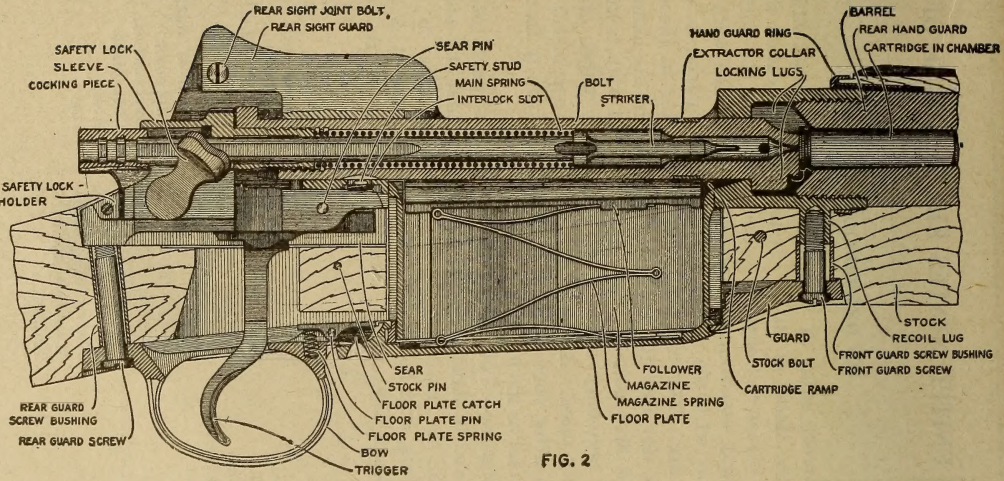

REAR SIGHT JOINT BOLT
REAR SIGHT GUARD
SAFETY LOCK
SLEEVE
COCKING PIECE
SEAR PIN
SAFETY STUD
MAIN SPRING
INTERLOCK SLOT
BOLT
STRIKER
HAND GUARD RING
EXTRACTOR COLLAR
LOCKING LUGS
BARREL
REAR HAND GUARD
CARTRIDGE IN CHAMBER
SAFETY LOCK HOLDER
STOCK
RECOIL LUG
GUARD
STOCK BOLT
FRONT GUARD SCREW BUSHING
FRONT GUARD SCREW
CARTRIDGE RAMP
FOLLOWER
MAGAZINE
MAGAZINE SPRING
FLOOR PLATE
SEAR
STOCK PIN
FLOOR PLATE CATCH
FLOOR PLATE PIN
FLOOR PLATE SPRING
BOW
TRIGGER
REAR GUARD SCREW BUSHING
REAR GUARD SCREW

FIG. 2

Manipulation of the rifle.—To load, raise the bolt handle and draw the bolt straight to the rear to the limit of its motion. Place either end of a loaded clip in the clip slots in the receiver, and, with the thumb of the right hand, push the cartridges down into the magazine until the top cartridge is caught by the right edge of the receiver. Then close the bolt and lock it by turning the bolt handle down. The forward movement of the bolt carries the topmost cartridge into the chamber and ejects the clip. The rifle is now ready to fire by pulling the trigger.

Clips hold five cartridges, which is the capacity of the magazine, but a sixth cartridge may be carried in the chamber if the cartridges in the magazine be pressed down and the bolt be started forward over them before inserting the additional cartridge in the chamber. Care must be taken to see that the bolt is safely started forward over the top cartridge, as the feeding of a second cartridge into the chamber by the bolt may result in the discharge of the first cartridge by the nose of the second while the bolt is open.

To eject the empty case of a fired cartridge, feed a new cartridge from the magazine into the chamber and cock the piece; the bolt is turned up, drawn fully to the rear, then pushed fully to the front, and turned down. If the magazine is empty, the bolt will be locked in its open or rear position by the rising of the follower, thus giving notice to the soldier that the magazine is empty and needs recharging. This arrangement prevents the soldier from working the bolt when the rifle is empty, believing, in the excitement of battle, that he is actually firing.

To render the piece safe when loaded, turn the safety lock to the rear as far as it will go.

Precautions.—If it is desired to carry the piece cocked with a cartridge in the chamber, the safety lock should be turned to the rear. Under no circumstances should an attempt be made to let the firing pin down by hand, or by a manipulation of the trigger while closing the bolt, upon a cartridge in the chamber.

To obtain positive action the bolt, when actuated, should be fully drawn to the rear. Open and close the bolt, and work it backward and forward with force. The piece can not be injured in this manner. If the rifle misses fire, the bolt should not be opened or unlocked until sufficient time has elapsed to assure that the cartridge is not hanging fire. Inasmuch as the rifle can not be cocked except by opening the bolt, there will be a temptation to open the bolt too soon, and it is wise to wait even a full minute to be sure.

The cartridge used in the Model 1917 rifle is the same as that used in the Model 1903 rifle. It is called the "Ball Cartridge, Caliber .30, Model of 1906." The cartridge is composed of a

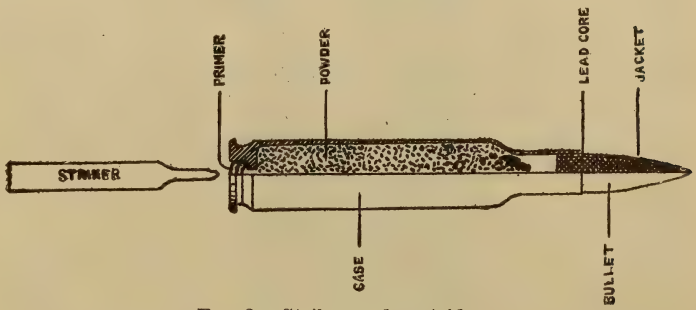


FIG. 3.—Striker and cartridge.

brass case holding the primer, the powder, and the bullet. When the trigger is pulled the striker flies forward and indents the primer. (See fig. 3.) The primer upon being indented gives forth a spark, which ignites the powder. The powder in burning generates a strong gas. This expanding gas forces the bullet through the bore with great speed, so that it leaves the muzzle of the rifle with a muzzle velocity of 2,700 feet per second. The pointed bullet, weighing 150 grains, encounters the resistance of the air as soon as it leaves the muzzle, and this resistance causes its velocity to fall off as it flies, so that the remaining velocity of the bullet at 500 yards is only 1,668 feet

per second, and at 1,000 yards 1.068 feet per second. The maximum range of the rifle is 4,891 yards, the barrel being elevated at an angle of 45°.

The flight of the bullet through the air may be likened to that of a baseball thrown by hand. Over short distances the bullet has practically no drop, and the barrel may be pointed directly at the object it is desired to hit, just as the pitcher throws directly at the catcher's mitt. For long distances, however, it is necessary to point the muzzle of the rifle slightly up into the air in order that the bullet may carry the necessary distance, just as the ballplayer throws the baseball high up in the air in throwing to home plate from center field. If the soldier will elevate the slide on the leaf of the rear sight as far as it will go, to the mark "16," and then aim at the object, seeing the front sight and object in line through the peephole, he will notice that his barrel is slightly pointed up into the air. This is to allow for the drop of the bullet. The path which the bullet takes through the air is a curved line, just as the path of a baseball thrown to any distance is a curved line. This curved line or path is called the "trajectory." Figure 4 shows this trajectory when the battle sight is used, the battle sight (peep sight seen in position when the leaf is laid down) being adjusted for a range of 400 yards. It will be noticed that the bullet, leaving the muzzle, flies above the line of aim through almost its whole course, and only drops back to the line of aim, and strikes the point aimed at, at that range to which the sights are adjusted. Thus, in figure 4, if the aim be taken at the silhouette the bullet will strike high at 100, 200, and 300 yards and will strike the point of aim at 400 yards. To strike an object at any distance it is necessary, either to set the sights for the exact range and aim where one wishes to hit, or else, if the sights be not set for the correct distance, to make an allowance in the aim. Thus, with the sights set for 400 yards, if one wishes to strike a certain point at a shorter distance he must aim a little below the point.

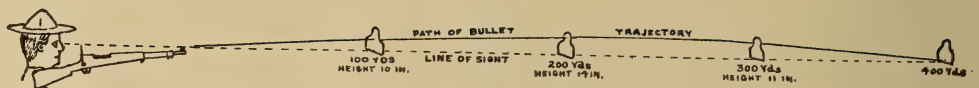


FIG. 4.—Line of sight and trajectory at 400 yards. Sights set at 400 yards and aim taken at the bottom of the figure.

Different cartridges. There are several different types of Model 1906 cartridges furnished for various purposes, as follows:

The ball cartridge has a plain brass case and a cupro-nickel jacketed bullet. It is used for war and for regular target practice. It is the full-charged cartridge. This cartridge is packed in cloth bandoleers, 60 cartridges in a bandoleer. The bandoleer contains six pockets. Upon opening the pocket two clips of 5 cartridges each can be taken from it. The soldier normally carries 100 cartridges in his belt, taking them from bandoleers, placing them in the pockets in his belt, and discarding the bandoleers. In going into battle he will usually be issued two bandoleers in addition to the 100 rounds which he carries in his belt, making 220 rounds in all which he carries into a fight. In battle he must always reserve 30 rounds in the three right-hand pockets of his belt and never fire them except when ordered to do so by an officer or when in a grave emergency and by himself. The bandoleers are packed in a metal or wood box which contains 1,200 rounds and which is marked on the outside "Ball Cartridges, Caliber .30, Model of 1906."

The guard cartridge is intended for guard duty, and contains a smaller charge of powder than the ball cartridge. It can be distinguished from the ball cartridge in its having five cannelures or grooves encircling the body of the brass case at about the middle. At 100 yards range this cartridge requires a sight elevation of about 450 yards.

The blank cartridge consists of the regular brass case without bullet, there being a waterproof wad in the muzzle of the case. The case contains a light charge of powder, which gives a loud report. Blank cartridges are forbidden to be used at a range of less than 100 yards, as there is danger of the wad doing injury to the represented enemy, particularly to their eyes. After the rifle has been fired with blank cartridges it should be cleaned with the same care as though it had been fired with ball cartridges, as the residue of the blank cartridge is very liable to rust the bore.

The dummy cartridge contains no powder, and the primer has no percussion composition. To distinguish it from the other types of cartridges its case is tin plated and provided with six longitudinal corrugations, also three circular holes in the corrugated portions. It is used for drill purposes to teach the soldier how to load the rifle and how to operate it in rapid fire. These cartridges should not be thrown away, but should be picked up, cleaned, and returned to the company storeroom after use.

Empty shells.—After firing the cartridge the empty shells should always be collected and saved if possible, and then turned in to the nearest ordnance officer. The empty case has considerable value on account of the metal in it, and the best ones can be reloaded.

DISMOUNTING AND ASSEMBLING THE RIFLE.

To dismount the bolt.—Remove the bolt from the rifle by drawing it out to the rear while pulling out the thumb piece of the bolt stop. Hook a loop of string on the dismounting hook on the cocking-piece lug, and, holding the bolt in the left hand and the string in the right, draw the cocking piece out until the lug clears the end of the bolt. (See fig. 5.) Then, by moving the right hand in a circular path counterclockwise, unscrew the sleeve from the bolt and withdraw the sleeve, cocking piece, and striker from the bolt. Grasp the sleeve with the left hand and, while holding the point of the striker against a wood or similar surface, force the sleeve toward the point of the striker, compressing the mainspring until the lug on the cocking piece clears the lug slot in the sleeve, as shown in figure 6. Then, with the right hand give the cocking piece a quarter turn in either direction to disengage it from the striker and draw it off to the rear. Relieve the spring from stress slowly and remove it and the sleeve from the striker, being careful that the parts do not fly from the hand. Turn the extractor so that it covers the gas-escape holes in the bolt, and push forward with the thumb until it is free from the ears on the collar.

To assemble the bolt.—Slide the mainspring over the striker. Hold the point of the striker against a wood or similar surface, and, placing the sleeve against the end of the spring, with the flats in its bore registering with the flats on the striker, compress the spring by forcing the sleeve toward the point of the striker. Holding the sleeve with the mainspring fully compressed, replace the cocking piece on the end of the striker, and lock it by a quarter turn so that its lugs align with the lug slot in the sleeve. Then let the sleeve return to its position slowly under the action of the spring. Grasp the bolt in the left hand and start the threads on the barrel of the sleeve into the threads in the end of the bolt. Holding a loop of string in the right hand

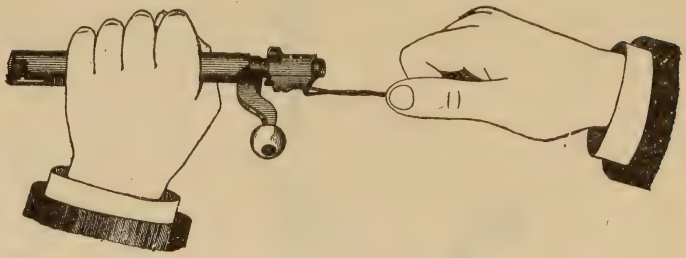


FIG. 5.

as before, hook it on the dismounting hook, and draw the cocking piece out. Then, by moving the right hand in a circular path, clockwise, screw the sleeve home in the bolt. Place the lug in the half-cock notch. Slide the extractor to place in line with the gas-escape holes, engaging the undercut lug on the extractor with the ears on the ring, and lifting the hook so that the tongue will slide over the end of the bolt. Turn the extractor so that it lies over the unslotted or solid-locking lug, and replace the bolt in the receiver. Push the follower down and close the bolt.

To dismount the magazine mechanism.—With the bullet end of a cartridge, press the floor-plate catch (through the hole in the floor plate), and, at the same time, draw the floor plate to the

rear. This releases the floor plate, which comes out, bringing with it the follower and follower spring. The spring may be released from the floor plate and follower, by springing it to clear the spring stops, and then withdrawing its ends from the undercuts.

FIG. 6.

To assemble the magazine mechanism.—Connect the magazine spring with the follower and floor plate by inserting its ends in the undercuts. Insert the follower and spring into the magazine, and put the tenon on the front end of the floor plate in place. Then seat the floor plate by pressing it inward and forward, so that the lug on the floor plate enters its slot in the guard and is latched by the magazine catch.

CARE OF THE RIFLE.

The soldier's rifle is a piece of modern machinery. If it is to remain an efficient fighting weapon in his hands it must be properly cared for. One of the most important duties of the soldier is the care of his arms.

Cleaning the bore after firing.—The bore of the rifle will deteriorate very quickly after cartridges have been fired from it if it be not properly cleaned. **The bore must be cleaned not later than the evening of the day on which it was fired.** In order to understand the proper care of the bore we must know something about the fouling which the firing of a cartridge deposits in the bore. The fouling from the powder is very acid. If allowed to remain on the steel surface of the bore it will rust it. There is also deposited in the bore a metal fouling, really a cupro-nickel plating, like silver plating, which comes from the jackets of the bullets. This plating or fouling usually has some of the acid of the powder fouling imprisoned under it. We must use something to clean the bore which will dissolve this plating or metal fouling, and at the same time will neutralize the acidity of the powder fouling. Ammonia is the only thing which will do this. The supply sergeant of your company will provide you with an ammonia swabbing solution with which to clean your rifle. This solution is expensive, and it looses its strength quickly if exposed to the air. See that you do not waste it, and that you keep the bottle that it comes in tightly corked except for the few seconds necessary to apply it to a patch.

Remove the bolt from the rifle. Place the muzzle of the rifle on a piece of clean board or wood chip, breech up. Moisten one of the little round flannel patches which are provided for cleaning with the swabbing solution, and enter it in the well of the magazine just over the chamber. With the end of the little finger press it down over the mouth of the chamber, centering it over the mouth. Insert the barrack cleaning rod from the breech of the rifle, center the flannel patch, and push it down

through the bore until it comes against the board at the muzzle of the rifle. Pull and push it back and fourth ten or twelve times through the bore, scrubbing the bore thoroughly with the swabbing solution. Repeat this with four or five successive patches wet with the solution. Then scrub the bore immediately with four or five more dry, clean patches so as to remove all ammonia and dirt from the bore.

Now, hold the breech of the rifle up to the light (sky) and look into the bore from the muzzle. If you should see some little bright, metal scales or patches adhering to the bore near the muzzle, particularly on the top of the lands, this is lumpy metal fouling. If this is present take the rifle to your supply sergeant so that he can apply a strong ammonia solution to the bore to remove this. If, however, the bore appears bright and perfectly free from all kinds of fouling, the only thing necessary to perfectly preserve it is to oil it to keep moisture from it. To oil the bore use a flannel patch thoroughly saturated with the thick grease called Cosmic, with which your supply sergeant will provide you. All portions of the bore should be thoroughly coated with this grease at all times except when cleaning the rifle, and at muster and Saturday inspections.

When ammonia can not be obtained for cleaning.—Instead of the ammonia swabbing solution some one of the nitro cleaners may be used, such as Hoppe's Powder Solvent No. 9, or Rem-Oil, or a saturated solution of sal soda, or even boiling water. Boiling water may be poured through the bore by taking out the bolt and inserting a funnel of tin or oiled paper in the breech of the rifle. The bore should be swabbed in the same manner as with the ammonia swabbing solution, then dried with clean patches, and finally greased. **Note particularly that when anything except ammonia is used to clean with it will be necessary to give the bore a thorough cleaning on the next day, and for several days thereafter to stop the rusting that will take place from the acid powder fouling that has been deposited under the metal fouling.** As soon as possible thereafter the bore should

be given a thorough cleaning with the ammonia swabbing solution.

Care of the breech mechanism.—The mechanism of the rifle must be kept clean and lubricated with a light oil. To clean it take out the bolt, magazine floor plate, magazine spring, and follower, and take these apart. Rub them off with an oiled rag. Put a few drops of oil on the firing pin rod, the cocking piece, the striker, and the cam surfaces.

Care of exterior of the rifle.—Moisture in the air, rain, dust, and sweaty hands all promote rust and wear. After each day's drill, or each night during field service, the rifle should be thoroughly wiped off all over with an oily rag, and, if possible, placed where the damp night air will not get at it. Never place the rifle in a cloth case or place a rag in the muzzle. Cloth or rags absorb moisture and will quickly cause rust.

Inspections.—At the formal inspections on Saturdays and at muster the inspector wishes to see the rifles entirely free from oil polish, because only then can he tell their true condition. At these inspections the rifle should be perfectly free from oil and grease everywhere, and every little recess wiped out. A small brush like a paint brush is convenient for cleaning the small recesses and screw heads. At all other inspections the rifle should be perfectly clean, but the breech mechanism should be slightly oiled, and bore greased, and the oiler in the butt stock filled with oil.

In the trenches and on the battle field.—The rifle must be kept in condition at all times and ready for instant action. See particularly that the breech mechanism is clean, free from dust and dirt, and well oiled. Inspections wlil be made particularly to see to this at reveille and retreat. When in trenches a canvas cover, consisting of a small piece of canvas, with tie tapes just large enough to cover the breech mechanism, helps greatly in keeping dirt and mud from the vital parts of the mechanism.

ESSENTIALS OF GOOD MARKSMANSHIP.

No man can teach himself to shoot without assistance of some sort. He will be sure to develop many faults which will limit his progress and make it difficult for him ever to become a really good shot. Many years' experience have shown that there is one best method of teaching marksmanship. You may learn this from a skilled instructor or you may work it out yourself by following a book of instruction. This book gives in detail, and in a practical manner, the rules of good marksmanship.

The essentials, in which every man must perfect himself, are five in number:

1. **Aiming.**—The soldier must know how to aim his rifle consistently. The aim must be exactly the same for each shot.

2. **Holding.**—The soldier must be able to hold his rifle steady in the various firing positions.

3. **Trigger squeeze.**—When aiming correctly, and holding steadily, it is then necessary that the soldier be able to pull the trigger so as to discharge the rifle without disturbing this aim and steady holding.

4. **Calling the shot.**—It is necessary that the soldier be able to catch with his eye the exact point on the target where the sights were aligned at the instant the trigger was pulled. Unless he can do this he can never tell whether a certain shot was the result of good shooting or accident. He can not tell whether his rifle is sighted correctly or not.

5. **Sight adjustment.**—When the soldier learns to call his shots, if he finds that his rifle is not correctly sighted for him, he must be able to adjust his sights so that the rifle will shoot where he aims it.

Lastly, the soldier must be able to coordinate these five essentials. He must be able to hold his rifle steadily, and at the same time aim it accurately at the object he wishes to hit. While he is doing these two things he must be gradually squeezing the trigger so that the rifle will be fired without disturbing this aim. Just as the rifle is fired he must catch with his eye the exact

point on the target where the sights were aligned. It is very necessary that he learn to concentrate all of his mind and will power on doing these four things perfectly.

The five essentials are taught the soldier in the preliminary drills before he is permitted to fire on the range, and he is required to qualify in each of them. To permit a soldier to fire before he is able to qualify in these essentials is a waste of time and ammunition, and, moreover, the soldier is almost sure to learn bad habits which it will be hard to break him of.

AIMING.

Aiming consists in getting the front and rear sights in line in a certain manner and then holding them in line and so moving

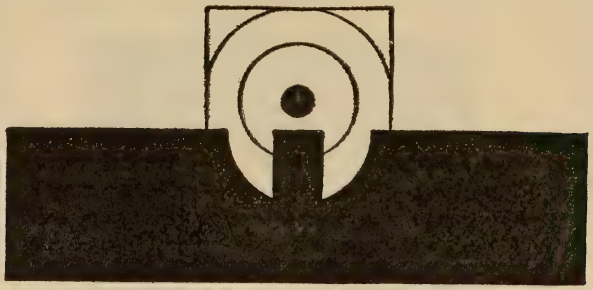


FIG. 7.—Alignment of open sights and target in aiming. Models 1898 and 1903 rifles.

and pointing the rifle as to bring the bull's-eye on the target into the same line. There are two sights on the rifle, the front sight and the rear sight. When viewed from the rear the top of the front sight appears like a vertical post or blade. There are two forms of rear sight, the open sight as seen on the Model 1898 and Model 1903 rifles, and the peep sight as seen on the Model 1903 and Model 1917 rifles.

To align the open sight.—The top or tip of the front sight must be brought into line with the middle of the U-shaped notch

of the rear sight so that the front sight tip appears exactly in the center of the notch, and is held at such a height in it that the tip appears on a line with the horizontal top edge of the sides of the U, as shown in figure 7. Study this figure until you are perfectly familiar with it. It shows the sights properly aligned and pointed at the bottom of the bull's-eye on the target.

To align the peep sight.—The top or tip of the front sight must be seen through the hole in the rear peep sight so that it

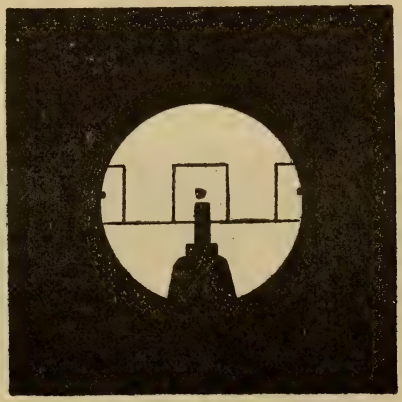


FIG. 8.—Alignment of peep sight and target in aiming. Models 1898 and 1903 rifles.

appears exactly in the center of the hole, as shown in figure 8. Study this figure also until you are perfectly familiar with it. It shows the sights pointed at the bull's-eye of the target.

The soldier must learn to align the sights with extreme accuracy, otherwise he will probably miss the whole target. The sights can not be brought into perfect alignment unless the eye is held still, as the eye will "bob" all around, in and out of the line of sight. Therefore, when aiming press the cheek hard against the side of the buttstock so as to hold the eye steadily in the line of sight. You should become so familiar with the

method of aligning the sights that the eye remembers the "picture" of the front and rear sights when correctly aligned, and is able perfectly to reproduce this picture, so that when the picture is not just right the eye at once telegraphs the fact to the brain. Accurate aiming consists in exactly reproducing each time the picture of the front and rear sights and bull's-eye aligned as shown in the cuts.

In aiming at the target always aim just a little below the bull's-eye, the same amount each time. That is, see the same amount of white target between the top of the front sight and

FIG. 9.—Alignment of sights and target, Model 1917 rifle. Aiming at head target.

bottom of the bull's-eye. If the aim was taken at the middle of the bull's-eye the black bull's-eye and the black front sight would blend, and one's eyesight would not be good enough to tell whether he was aiming at the middle, top, or bottom of the bull's-eye. In aiming at an enemy, if his head only is showing, aim at the bottom of the head. If his head and shoulders are showing, aim at the junction of the ground and shoulders. If his whole body is showing, aim at his belt.

Always focus your eyes on the target, never on the sights. If you focus on the sights, they will be seen distinctly, but the

target will be all blurred, and you will not be able to aim correctly. If you focus on the target alone, it will be seen distinctly, and the sights will appear silhouetted against it, the front sight appearing distinctly. The rear sight may appear a little blurred, but this will make no difference, as you will be able to align just as accurately in the middle of the blur.

In aiming with the peep sight, pay no particular attention to the peephole, but **look through it,** and not at it. At first you will have to be careful about getting the top of the front sight aligned in the middle of the peephole, but after a few days' practice you will come to do this instinctively, and then aiming with the peep sight will become very simple indeed, because you will only have to place the front sight at the correct distance below the bull's-eye, the eye naturally aligning the front sight in the center of the peep. The eye has a natural aptitude for centering objects, and you should permit it to use this aptitude.

Focus the eyes on the target only.

Hold the eye steadily in the line of sight by pressing the cheek against the side of the stock.

Keep the left eye lightly closed.

Be very careful with alignment of the sights as shown in the figures.

Aim just below the bottom of the bull's-eye.

FIRING POSITIONS.

The soldier must learn to hold his rifle with a fair degree of steadiness in the various firing positions which he will have to assume when firing on the rifle range and battle field. He will first learn to sight his rifle with the rifle resting on some firm object. When he tries to aim with the rifle held by the hands, cheek, and shoulder alone he will probably find that it will "bob" all around, so that he will have great difficulty in holding it aligned on the target long enough to pull the trigger, to say nothing of aligning it below the bull's-eye.

Steadiness in any position is a matter of practice and balance. When one assumes an unfamiliar position he always finds that he is unsteady and shaky in it. He trembles and sways. Spread

the feet slightly apart and stand upright and you are in balance and can stand perfectly still. You are accustomed to this position. Lean way forward, inclining the body from the feet alone, and you begin to sway and wabble, and finally to tremble, and perhaps sweat. This is because you are assuming an unfamiliar position and the body is out of balance. You are using almost every muscle in your body to keep balanced. It is the same way when you first assume an unfamiliar firing position.

Take the standing position, for example, where you stand to fire with the rifle held to the shoulder, with no artificial rest. You will find at first that holding the rifle out in front of the shoulder unbalances the whole body, causing it to sway and then to tremble. But if you will stand with the feet planted slightly apart and the body well balanced, and then as you carry the rifle to the shoulder let the body move backward just a little so as to balance the extension of the rifle out in front, you will be quite a little steadier, and after you have practiced the position for a few days and have become accustomed to it you will find that you can hold quite steadily, steadily enough to keep your sights on a man at 200 yards while you squeeze the trigger.

The cuts illustrate the various firing positions and the remarks under each cut give the essentials of that position. Study the cuts carefully and imitate them as closely as the conformation of your body will permit, paying particular attention to the remarks. These positions should be practiced daily, both at drill and by the soldier individually at odd times when he has his rifle in his hand. Steadiness in any position requires lots of practice. Many positions will feel intensely uncomfortable at first, but you should persist in them until you become so used to them that they feel natural and comfortable. This pertains particularly to the kneeling and prone positions and to the use of the gun sling. These positions are the result of many years' experience, and they should not be varied from unless the conformation of the man differs considerably from normal.

STANDING POSITION.

Stand with feet apart. Lean back only slightly to preserve balance. Left hand grasps at balance. Left elbow well under the piece. Left side turned toward target. Right hand does most of the work of holding piece up and against the shoulder, while left hand steadies and directs. Left hand grasps at balance so as to hold rifle to shoulder during rapid fire. Keep piece at shoulder during rapid fire, pulling back hard with left hand so as to hold rifle up and firmly against the shoulder.

Standing position.

KNEELING POSITION.

Kneel on right knee. Sit on right heel. Left foot points toward target. Use the gun sling as in the prone position. Left elbow rests on point of left knee. Right elbow at the height of right shoulder. If desired, sit on the left side of the right foot. Try to avoid swaying from side to side.

Kneeling position.

SITTING POSITION.

Sit down half faced to right. Try to get deep holes for heels to rest in. Heels must be so placed that they will not only not slip, but they must *feel* absolutely secure or position will be unsteady. The legs may be crossed if desired. Use gun sling as described under prone position. Both elbows must rest on the points of the kneecaps. Press cheek hard against left side of buttstock. Retain rifle at shoulder in rapid fire.

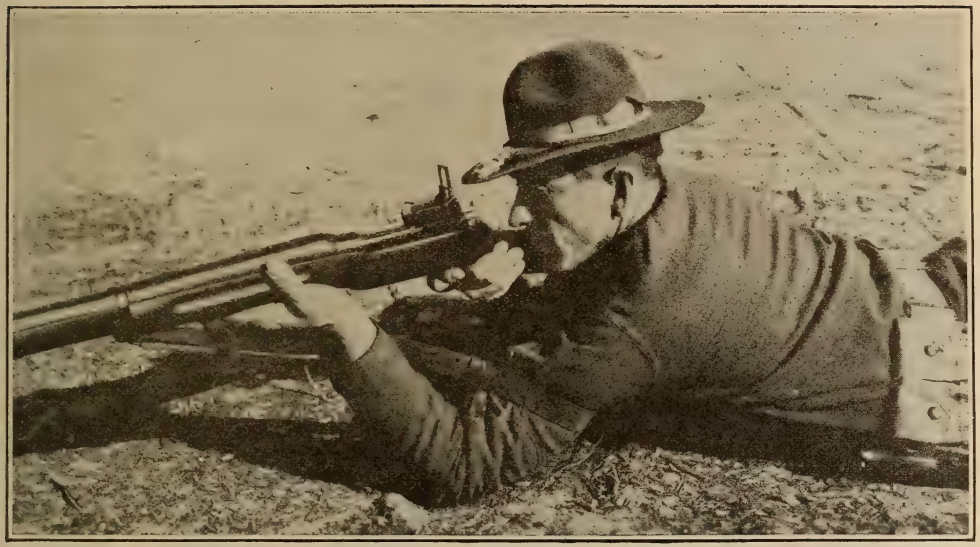
Sitting position

PRONE POSITION.

Prone position and use of the gun sling.

Lie down faced at an angle of 45° to right of target. Left elbow almost under the rifle. Right upper arm sloping to right at angle of about 45°. Loop of sling around left arm near the arm pit (never down near the elbow). Sling passes to right of left wrist. Tall piece of sling must be perfectly loose. Sling very tight, so tight that rifle can not be placed to shoulder without rolling over on left side. With tall and medium sized men left hand should grasp forestock just in rear of lower band. Forestock of rifle rests down in palm of left hand so that rifle is supported by bone of forearm alone, and not by bone of forearm and 19 joints and muscles of the fingers. Keep the rifle at the shoulder during rapid fire, moving the muzzle slightly to the right and low as the bolt is pulled back, and moving it up and to the left into the line of aim as the bolt is closed, keeping both elbows on the ground during the movement.

The position and method of using the sling are the same for all men. Very short-armed men will require a longer adjustment of sling from others, and left hand must grasp nearer the trigger guard. The position may be very uncomfortable at first, but should be persisted in and not varied until one becomes accustomed to it.



Prone position, view from left side.

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Firing from prone trench.

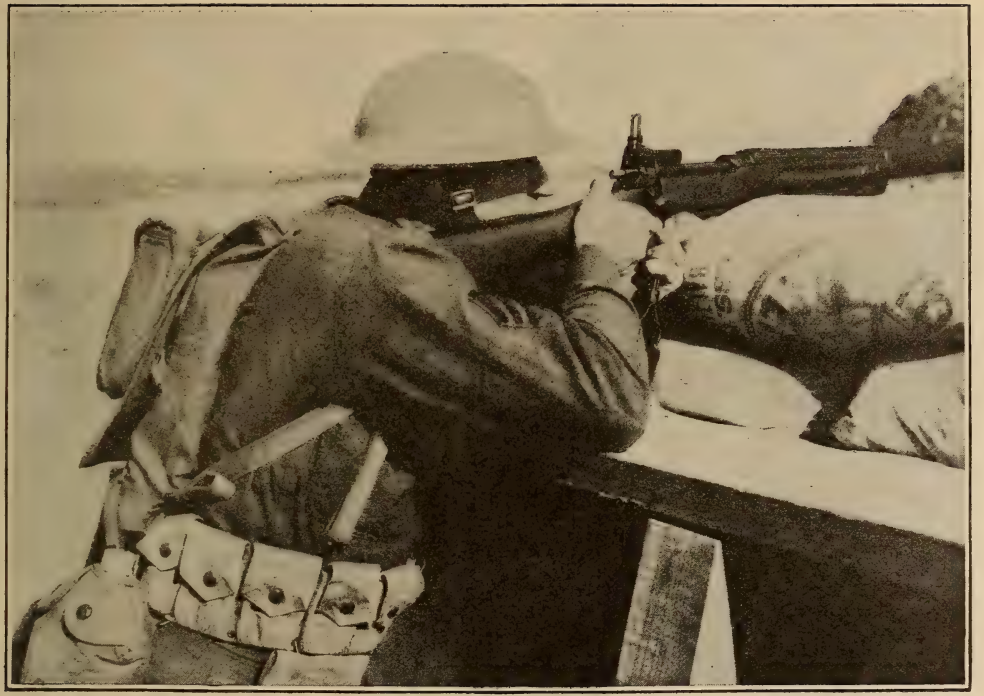
FIRING FROM PRONE TRENCH.

Assume position with gun sling as described under "Prone position." Rifle should rest in the left hand and back of left hand should rest on the top of parapet.

Firing from standing trench.

FIRING FROM STANDING TRENCH.

Lean the left side against the revetment, left elbow on berm or shoulder rest of trench. Rifle should be rested on top of the parapet as near the balance of the piece as possible. The further the rifle is rested toward the muzzle the higher will it shoot. The left hand may grasp the gun sling and pull down hard on it, much in the same way that one would hold a razor strop. Keep the rifle at the shoulder during rapid fire. Duck the head down below the parapet when filling the magazine.



Firing from standing trench.

FIRING AROUND TREE OR BUILDING.

Lean with left side against tree or building, exposing as little of body as possible. Use the gun sling on arm if desired. Rest left side of rifle, left forearm, and left hand against the tree or building, shooting around the right side of it. Withdraw the head and right shoulder under the protection of the shelter when filling the magazine or between shots when executing slow fire. In rapid fire keep the rifle at the shoulder.

Firing around tree or corner of a building.

Firing around tree or corner of a building.

TRIGGER SQUEEZE.

The soldier must learn to squeeze the trigger without disturbing his aim and the steadiness of his holding. It will matter little how carefully and accurately he aims and how steady he is in the firing positions if at the instant he squeezes the trigger he gives a "yank" or convulsive jerk to the trigger which pulls the rifle wide of the mark at the instant it goes off. The trigger must be pulled without disturbing or moving the rifle in the least. It requires a little practice to learn to do this on the rifle range, and a lot of practice to make it second nature so that the soldier will invariably squeeze the trigger in this manner even under the great excitement of battle.

The trigger should be pulled with the first joint of the forefinger, which is the best educated portion of the human body. The pressure should be applied straight to the rear, the right hand holding the grip of the rifle in such a way that the index finger is not under constraint but is able to apply the pressure delicately. It will be noticed that when the pressure is first applied to the trigger it will move backward about one-eighth inch upon the application of a pressure of about a pound. This is the preliminary or safety pull, and should always be taken up at once as soon as one starts to aim. That is, when one places the rifle to the shoulder and glances through the sights, at once place about a pound pressure on the trigger, enough to take up this safety pull, and hold the trigger back against the sear spring. Then, as the aim and steadiness of holding are perfected gradually increase the pressure on the trigger, ounce by ounce, by a gradual squeeze, until when the hold and aim are at their best but an ounce or so more pressure is required to discharge the rifle. As the front sight moves or drifts under the bull's-eye, carefully and easily squeeze or press this additional ounce on the trigger so that the rifle is discharged without the least disturbance.

Squeezing the trigger should be practiced in this manner on every possible occasion. Never squeeze it except in this manner.

Always take up the safety pull first as you start to aim, and remember to put the rest of the pressure on ounce by ounce. Do not try to hasten the operation at first. Speed should never be attempted until you can do it perfectly by taking, say, 15 seconds to complete the pressure and discharge the rifle. After you have gotten it perfectly when doing it slowly you should speed it up a little; taking up the safety pull quickly, and gradually working up to the point where you can apply the pressure gradually but completely in a second or two.

The control of the trigger is one of the most important factors in accurate shooting.

FLINCHING.

Flinching consists of giving a convulsive jump just as the rifle goes off, or else of giving a jerk to the trigger just as the final squeeze is placed on it. It arises from an instinctive dread of the recoil or report of the rifle. The soldier must learn to steel himself against this, and not to budge or "blink" a particle as the rifle goes off, carefully squeezing the last ounce of pressure on the trigger without any tendency to jerk the trigger with an idea of "getting the agony over as soon as possible."

The recoil of the rifle is not at all unpleasant if it is held correctly. It has only about half the recoil of a shotgun. The right arm and shoulder should be held rather high so that the cheek is pressed hard against the side of the butt stock, and not stretched over it. Then when the rifle rises with recoil the cheek will go back slightly with the stock, and the stock will not rise up and hit the cheek a blow. Similarly the thumb of the right hand should not pass over the grip where it may be driven back into the face by recoil, but should remain on the right side of the rifle. The rifle should be held firmly and squarely to the shoulder, but no undue effort should be made to hold it very hard against the shoulder or to brace against the recoil, as this will only accentuate the kick. Hold the rifle only firmly, and let the body sway backward as the recoil comes. There is no necessity at all of padding the shoulder if the rifle is held cor-

rectly, but a little padding may help the recruit in the first few days of his practice.

Learn to concentrate every bit of your mind and will power on holding steadily, aiming accurately, and on squeezing the last ounce easily on the trigger. Put so much attention on these things that there is no room in your system for any thought of recoil and report. As a usual thing, if the recruit can be made to thus concentrate on these essentials for his first four or five shots with service ammunition all dread of recoil or report will cease, and he will have no trouble from this source in the future.

You must learn to concentrate on aiming, holding, and trigger squeeze so as to absolutely eliminate everything else from the mind. **Repeated firing will not cure flinching.**

CALLING THE SHOT.

"Calling the shot" is a term applied to the act of catching with the eye the exact spot on the target where the sights were aligned at the instant the rifle was discharged. The novice, particularly, is not able to hold with perfect steadiness. He trembles slightly, and as he aims his sights move over the surface of the target. He endeavors to squeeze the last ounce of pressure on the trigger as the sights appear to move under the bull's-eye. He does not always succeed in doing this. Sometimes his sights are wide of the bull's-eye when he pulls the trigger. Obviously, it is the point on the target where the sights are aligned at the instant of discharge that he expects his bullet to hit. If his bullet does not strike close to this point it is also obvious that his sights are not correctly adjusted.

During the holding, as the sights move over the target, follow them with the eye. Just as the rifle goes off, and just before the recoil of the rifle blots out the vision of the sights and target, catch with the eye the exact point where the sights were aligned. This is easily learned and requires only a little practice. It should always be done. If, after two or three shots, it is obvious that the rifle is not striking the point where the sights are aligned at the instant of discharge (point of aim),

then the sights should be adjusted so as to make the point of aim and point of impact coincide.

One can not progress far in rifle shooting until he learns to call his shots, because he can never tell whether his rifle is sighted correctly or not. If the soldier should make a bull's-eye in rifle shooting, it does not always mean that he has made a good shot, because the sights may have been aimed wide of the bull's-eye when the rifle went off, and the striking of the bull's-eye may have been a matter of luck due to the convulsive jerking of the trigger or to other causes.

The phrase "calling the shot" comes from the words of the instructor on the target range, who always tells the rifleman to call to him just where his sights are aligned each time the rifle is discharged.

SIGHT ADJUSTMENT.

One can not do accurate shooting unless the sights are correctly set. The rear sight must be so adjusted that if one aims just below the bull's-eye, as directed in the chapter on aiming, his shots will hit near the center of the bull's-eye. A rifle can not always be relied upon to shoot into the bull's-eye when its sights are set to the exact range one is firing at as marked on the sight scales. For example, on a calm day at 500 yards one can not always take a new rifle, set the sights at 500 yards elevation, and at zero on the wind-gauge scale, and be sure that a correctly aimed and pulled shot will strike the bull's-eye. Indeed, the bullet may hit the target 2 or 3 feet off in any direction from the bull's-eye. It is true that the sights are correctly set for the distance and zero when the rifles leave the arsenals; but it should be remembered that these rifles are tested under one set of conditions only, and that there are a great many things which influence the shooting of the rifle, and the flight of the bullet, and hence make a change of sight setting necessary. The individual methods of aiming and holding, little differences in ammunition, wind, light, temperature, humidity, altitude, and the condition of the bore all have their influence on the sighting

necessary for a certain rifle. Moreover, owing to the individual peculiarities in aiming and holding the rifle, two men, both good shots, may have to set the sights of the same rifle quite differently for both elevation and windage in order to strike the bull's-eye at a given range.

What is desired is that the rifle shall shoot where one aims it. That is to say, the bullet should strike the target **where one calls his shot.** If, after firing one or two shots, the soldier finds that the bullet is not striking the target close to where the rifle was aimed at the instant that the final squeeze was given to the trigger, then the problem is to so move the sights as to cause the bullet to strike that point.

Suppose the soldier is firing at 300 yards. At the instant that the rifle went off he noticed that his sights were aligned a little above and a little to the right of the bull's-eye. When his shot is marked he sees that it struck a little to the right of the bull's-eye, and about even with the lower edge of the bull. In other words, it struck about 10 inches below where he aimed it. He fires one more shot, and this time his aim was correct, the top of the front sight being seen just below the bull's-eye at the instant that the rifle went off. This time the shot is marked a little below the bull's-eye. Again the rifle seems to be shooting about 10 inches low. It is therefore time to change the sight adjustment so as to make the rifle shoot about 10 inches higher than it is now doing. The rear sight must be raised a certain distance. To find out just how much to raise the sight to make the shots strike about 10 inches higher at 300 yards refer to the table of sight corrections below. Here in the elevation table we see that if the soldier is using the Model 1903 or Model 1917 rifle, if he raises the slide of the rear sight 100 yards, or from 300 to 400 yards, he will raise the point of strike 10 inches on the target. He does this, and he now finds that his rifle is consistently shooting where he aims it. He therefore makes a note in his score book, and a mental note as well, that at 300 yards he must set his rear sight at 400 yards elevation.

There is one rule that the soldier should always remember about sight adjustment. **Always move your rear sight in the direction in which you want to make the shot strike.** Thus, if your rifle is shooting low, and you wish to raise the point of strike, raise your elevation. If the rifle is shooting to the right, and you want to move the point of strike to the left to make the rifle shoot zero, move the wind gauge so that the sight moves to the left. Do not guess at how much to move the sight. Refer to the table of sight corrections, and move the sight just the correct amount to give you the change desired.

Remember to adjust the sights carefully to the exact amount. A very small error in adjusting the sights will make a big error in where the shots strike on the target. Look at the scale and index line carefully when you adjust, and practice doing it both accurately and quickly.

TABLE OF SIGHT CORRECTIONS.

ELEVATION CORRECTION TABLE.

Corrections corresponding to a change in elevation of 100 yards.

Range (yards).	Correction corresponding to a change in elevation of 100 yards.	
	Model 1898 rifle.	Models 1903 and 1917 rifles.
	Inches.	*Inches.*
100	4.87	2.88
200	11.38	5.44
300	19.95	10.08
400	31.48	17.28
500	46.04	24.72
600	63.86	34.16
700	86.00	46.68
800	108.87	62.48
900	136.02	79.08
1,000	166.08	99.24

WINDAGE CORRECTION TABLE.

Correction corresponding to one point on the wind-gauge scale.

Range (yards).	Correction caused by moving the movable base one point.	
	Model 1898 rifle.	Model 1903 rifle.
	Inches.	*Inches.*
100	6	4
200	12	8
300	18	12
400	24	16
500	30	20
600	36	24
700	42	28
800	48	32
900	54	36
1,000	60	40

NOTE.—The rear sight on the Model 1917 rifle has no wind gauge.

WIND ALLOWANCES.

The wind is the greatest disturbing factor to the flight of the bullet that riflemen have to contend with. The effect of a wind blowing on the side of a bullet flying through the air is to cause it to travel slightly with the wind. Thus, if a wind coming from the right of the shooter is blowing on the right side of the bullet, the bullet will drift to the left, and instead of hitting the bull's-eye it will strike over toward the left side of the target, the amount of deflection depending upon the velocity of the wind, and the range at which the rifleman is firing. To compensate for this deflection we must either adjust our wind gauge to the right, or we must aim to the right of the bull's-eye. It remains to be seen just how much to adjust the wind gauge, or how much to aim off to allow for a certain velocity and direction of wind at certain ranges.

In speaking of the direction of the wind riflemen consider the range as they would the dial of a clock with the target at 12 o'clock and the firing point at 6 o'clock. Thus a wind blowing from the right at exactly a right angle to the line of fire would

be called a 3 o'clock wind, and a wind blowing straight toward the rifleman would be a 12 o'clock wind. Similarly, a wind blowing over the left shoulder would be a 7 o'clock wind. A 3 or 9 o'clock wind has the greatest deviating effect on the bullet, because it strikes it squarely on the side. The deviating effect decreases as the direction approaches 12 or 6 o'clock, until when the wind is in either of these latter directions it causes no lateral drift to the bullet at all.

The direction of the wind can best be told by facing toward the wind until it seems to whistle equally past each ear. One will then be facing squarely into the wind. Estimation of the velocity of the wind is largely a matter of guesswork. The velocity of the wind is measured in miles per hour. A wind blowing at 2 miles per hour is probably the lightest that will make itself manifest to the ordinary man. Up to 5 miles per hour one would call a wind gentle or light. From 5 to 10 miles per hour it becomes just a nice breeze, enough to make it rather difficult to light a match without sheltering it. From 10 to 15 miles is a stiff breeze; 15 to 20 miles per hour is a very strong wind, while anything over 20 miles is in the nature of a gale.

The table of wind allowances given below is correct for the .30-caliber, Model 1906 ammunition, as used in the Model 1903 or Model 1917 rifles. It shows the allowance that must be made for winds of certain directions and velocities in both points on the rear sight of the Model 1903 rifle, and inches to hold off with the 1917 rifle. When using the 1903 rifle allowance should always be made by adjusting the wind gauge, but the Model 1917 rifle has no wind gauge, and with this rifle it will be necessary to estimate the number of inches correction necessary, and hold off that amount.

For example, the table shows that at 500 yards range, with a wind blowing from 8 o'clock at 12 miles per hour, it will be necessary to move the wind gauge of the Model 1903 rifle one and one-fourth points to the left, or with the Model 1917 rifle to aim 25 inches (2 feet) to the left of the bull's-eye, in order to have the right correction for the wind.

TABLE OF WIND ALLOWANCES.

FOR MODELS 1903 AND 1917 RIFLES.

Range (yards).	Correction in points of windage (for Model 1903 sight), and in inches deflection (for Model 1917 rifle), for wind in miles per hour, blowing from—																	
	1, 5, 7, or 11 o'clock winds.						2, 4, 8, or 10 o'clock winds.						3 or 9 o'clock winds.					
	Velocity.	Points.	Inches.	Velocity.	Points.	Inches.	Velocity.	Points.	Inches.	Velocity.	Points.	Inches.	Velocity.	Points.	Inches.	Velocity.	Points.	Inches.
200	4	0	0	16	¼	2	4	0	0	16	½	4	4	¼	2	16	½	4
	8	¼	2	20	½	4	8	¼	2	20	½	4	8	¼	2	20	¾	6
	12	¼	2	24	½	4	12	½	4	24	¾	6	12	½	4	24	1	8
300	4	¼	3	16	½	6	4	¼	3	16	1	12	4	¼	3	16	1	12
	8	¼	3	20	¾	9	8	½	6	20	1	12	8	½	6	20	1¼	15
	12	½	6	24	¾	9	12	¾	9	24	1¼	15	12	¾	9	24	1½	18
500	4	¼	5	16	1	20	4	½	10	16	1¾	35	4	½	10	16	2	40
	8	½	10	20	1¼	25	8	¾	15	20	2	40	8	1	20	20	2½	50
	12	¾	15	24	1½	30	12	1¼	25	24	2½	50	12	1½	30	24	2¾	55
600	4	¼	6	16	1¼	30	4	½	12	16	2	48	4	½	12	16	2½	60
	8	½	12	20	1½	36	8	1	24	20	2½	60	8	1¼	30	20	3¼	78
	12	1	24	24	1¾	42	12	1½	36	24	3	72	12	1¾	42	24	3½	84

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SLOW FIRE.

In slow fire but one shot is fired at a time. The target is then marked, showing where that shot struck, and then another shot is fired, and so on until the soldier has completed his score of 10 or 15 shots. There is no time limit.

When the soldier arrives at the rifle range he should refrain from looking at the targets; thus his eyes will not become tired before it comes his turn to fire. Sit down in the shade, if possible, take out the score book, and make all preliminary entries in it. (See chapter on "How to Use the Score Book.") Look at the wind, if blowing, and calculate how much windage to allow for the first shot. Then take the rifle and carefully set the sights for the range you are going to fire at, and set off the calculated windage. Adjust the gunsling for firing, and see that the sights are blackened. **It is absolutely necessary that both front and rear sights be blackened for all firing.** To blacken them they should be smoked by holding in the flame of burning camphor, a candle, or an acetylene lantern.

When the soldier is called to the firing point he should go thereto promptly, taking with him his rifle, belt, bayonet, bayonet scabbard, score book, pencil, and ammunition, if this last is not supplied at the firing point. Place the score book and pencil alongside of you so that they will be handy during the firing. Adjust the gunsling to the arm for firing. Notice particularly the target you are going to fire on and aim at it, with the rifle unloaded, to be sure that the position is all right. You should be sure to get a steady, satisfactory position before starting in to fire. Be particular to see that you are aiming at the right target. A shot on the wrong target counts as a miss.

Now is the time for extreme care. The rifleman should concentrate every bit of will power of which he is capable on holding steadily, aiming accurately, and squeezing the trigger easily so as not to disturb the hold and aim. This is the very essence of good shooting. Learn to coordinate these three

things—hold, aim, and squeeze. And while squeezing be sure to catch the point of aim at the last instant before the rifle is discharged; that is, call the shot accurately. After firing draw back the bolt and eject the empty shell, but do not reload the rifle yet. Draw the score book up near at hand and watch where the shot is marked. When it is marked note on the target diagram where the shot struck the target, and if not at the point of call, at once adjust the sights as directed in the chapter on sight adjustment. Now lie low and rest until it comes time to shoot again. Riflemen usually go to the firing point in pairs, and the pair alternate in firing on one target, the man on the right firing first. The man who is not firing should rest while his partner fires his shot and not look at the target until he hears the scorer behind the firing point call the location and value of his partner's shot. Then he knows that the target is ready for him to fire again, and he can load his rifle, get into position, and fire his next shot.

Let the rifle stay unloaded, bolt open, between shots. Just as soon as the target is marked the rifleman should make the necessary entries in his scorebook, adjust his sights for the next shot if necessary, and then rest until the target is again ready for him to fire. This will give him the maximum time to rest his arms and eyes between shots. It is very necessary to get a system about everything, particularly the work at the firing point. Watch a good shot and see his system—how he does everything exactly the same each time. He does not jump up, or move around, or wriggle over the firing point. He saw to it that he had a good comfortable, steady position at the start, and he now appears to be half asleep, so coolly does he take everything. He does not hurry; he has time for everything because he has a system.

RAPID FIRE.

Rapid fire is the usual method of firing in battle to-day. The soldier should be able to fire 15 well-aimed and pulled shots in

a minute at 100 yards, and 10 in a minute at 200 and 300 yards. This requires a lot of practice in the manipulation of the rifle, in catching the aim, in squeezing the trigger, and in the rapid loading with the clip.

The Model 1898 and Model 1903 rifles can be used to simulate rapid fire by working the bolt if the cut-off be turned "Off." With the Model 1917 rifle the magazine floor plate, magazine spring, and follower must be removed from the rifle in order to simulate rapid fire without dummy cartridges, or the follower depresser used.

The rifle should be retained at the shoulder during rapid fire. The left hand should grasp the forestock well out toward the lower band. As a shot is fired, grasp hard with the left hand and pull the butt back hard against the shoulder and hold it there, retaining the rifle aimed approximately toward the target, while the right hand works the bolt. At the same time let go of the grip of the stock with the right hand, seize the bolt handle, jerk it up hard to open the bolt, pull the bolt hard to the rear all the way, bringing it back with force. Then push the bolt forward with force and slam it down shut. Instantly grasp the grip of the stock and the trigger, take up the safety pull on the trigger, release some of the strong backward pressure or pull of the left hand, catch the aim, and slowly start the trigger squeeze, firing the rifle again. Repeat until the magazine is empty, then let the right hand fly to the belt for another clip of cartridges, bring the rifle down into the loading position with the left hand, quickly but surely insert the clip into the magazine, close the bolt and resume the rapid fire.

Do not be afraid to use plenty of force to open and close the bolt. The bolt or rifle can not be injured by force applied in this manner. If enough force is not applied the bolt will work slow and hard. Be sure to pull the bolt completely to the rear with one quick motion, and then to slam it closed with one motion. Make two complete motions without pause. If you pause and make a false motion there is danger that you will

jam the rifle, which will tie everything up for a minute or so, get you excited, and spoil your shooting. **Do not look at the bolt when you are operating it.** Keep your eyes on your target or the enemy when you are not aiming. The bolt will take care of itself if you work it hard and completely.

The surely taking up of the safety pull just the instant that the finger touches the trigger preceding each shot is very important. Experience on the target range for many years has shown that most men who make poor scores at rapid fire do so because they do not take up the safety pull, but when their sights seem to be aligned on the target they give a long pull or jerk to the trigger from the full forward position which the trigger lies in before the safety pull is taken up. This always results in the rifle being jerked way over to the right and usually downward, so that the shot goes wide of the mark. The safety pull must be completely taken up as soon as the finger touches the trigger, and the remainder of the squeeze applied gradually and carefully.

It is far better to fire 5 well-aimed and pulled shots in a minute than 10 shots jerked anywhere into the scenery.

SPECIAL COURSE C.

To be fired by every man armed with rifle when facilities are available.

PRELIMINARY TRAINING.

The soldier is first given a thorough course of preliminary practice as outlined in paragraphs 1 to 70, inclusive, Small-Arms Firing Manual.

Thorough individual training in the preliminary work preparatory to actual firing on the range is the foundation upon which a good shooting organization is built. Without this preliminary training it is a waste of ammunition to allow the soldier to fire on the target range.

TESTS.

After the completion of the preliminary training and before proceeding to known distance firing the organization commander, assisted by his lieutenants, shall test each man of the organization in the following subjects:

TEST I.—*Nomenclature of the rifle* in so far as is necessary for its efficient care and use.

TEST II.—*Dismounting and assembling of the bolt and magazine mechanism.*

TEST III.—*Care of rifle.*

TEST IV.—*Deflection and elevation or aiming off for wind:* To be sufficiently extended to show that the soldier understands the subject.

TEST V.—*Sight setting:* Normal and peep, with and without deflection. Maximum time limit of 10 seconds in each of not less than 5 consecutive trials.

TEST VI.—*Sighting:* With rifle in sighting rest. (Third sighting exercise, par. 27; Small-Arms Firing Manual.)

Normal sight. Peep sight.	Proficiency required in 3 consecutive triangles of sighting with each. Distance 20 feet; no side of triangle to exceed ½ inch.

TEST VII.—*Loading from belt:* A clip of dummy cartridges in place in a pocket in the belt, the pocket fastened.

Standing. Kneeling. Sitting. Prone.	Maximum time limit of 6 seconds each in best 5 out of 7 consecutive trials.

TEST VIII.—*Firing positions:*

(*a*) Standing,
(*b*) Kneeling,
(*c*) Sitting,
(*d*) Prone,
(*e*) From parapet, wall top, or other rifle rest,
(*f*) From vertical edge of wall, door, window, tree, or similar position.

TEST IX.—*Aiming combined with trigger squeeze:*

Test by means of—

(*a*) Target machine,
(*b*) Aiming rod device,
(*c*) Belgian aiming device, or
(*d*) Perforated bull's-eye over instructor's eye.

(Methods used to be noted by abbreviations M, R, B, and P, respectively.)

(*a*) Standing,
(*b*) Kneeling,
(*c*) Sitting, and
(*d*) Prone.

TEST X.—*Rapid loading, aiming, and firing:* Load from belt and simulate fire with two clips of dummy cartridges. Tested by means of—

(*a*) Aiming rod device, or
(*b*) Belgian aiming device, or
(*c*) Perforated bull's-eye over instructor's eye.

(Method used to be denoted by abbreviations R, B, and P, respectively.)

Standing,
Kneeling,
Sitting, and
Prone.
} In the open, and from trenches. Time of each, 1 minute.

No man will be permitted to fire a shot on the range until he has satisfactorily passed the above tests. Commanding officers shall certify on the target record that this provision has been complied with.

There is no limit to the number of times that a soldier may take the tests, and a man who fails the first time shall be given such additional instruction as will enable him to pass the tests. The object is not to prevent the man from firing on the range, but to insure that he is ready for range practice before he takes up that work.

GALLERY PRACTICE.

Gallery practice will be as prescribed in paragraphs 71 to 76, inclusive, Small-Arms Firing Manual, when gallery rifles and ammunition are available.

AMMUNITION ALLOWANCE.

An allowance of 300 rounds per man is authorized for the year 1918, of which at least 50 rounds shall be expended in combat practice. The allowance of 250 rounds per man for the year 1917 is considered as cumulative and will be available until expended.

KNOWN DISTANCE PRACTICE.

Known distance practice includes short range practice, mid-range practice, and practice with telescopic sights.

SHORT RANGE PRACTICE.

Instruction.

The company commander will stop the instruction practice of any man who, in his opinion or that of the next higher commander, is not attaining results commensurate with the ammunition expended. For any man thus stopped the necessary preliminary drills and training shall be resumed until proper improvement is indicated, after which he shall resume instruction practice.

TABLE 1.—*Slow fire.*

All firing from a typical trench, bayonet fixed, rifle resting on the parapet.

Range.	Time.	Shots.	Target.	Position and type of trench.	Sight.
Yards.					
100	No limit	10	A-4	Prone	Leaf.
200	do	10	A-4	Standing	Do.
300	do	10	A-4	do	Do.

TABLE 2.—*Slow fire.*

All firing in the open, bayonet unfixed.

Range.	Time.	Shots.	Target.	Position.	Sight.
Yards.					
100	No limit	10	A-4	Standing	Battle.
200	do	10	A-4	Kneeling	Do.
300	do	10	A-4	Prone	Do.

TABLE 3.—*Rapid fire.*

All firing from a typical trench, bayonet fixed, rifle resting on the parapet.

Range.	Time.	Shots.	Target.	Position and type of trench.	Sight.
Yards.					
100	1 minute	10	0	Prone	Leaf.
200	do	10	0	Standing	Do.
300	1 minute 10 seconds	10	0	do	Do.

In order that the soldier may see his shot group, all hits on target 0 are signaled, but only those hits on the silhouette are recorded.

All rapid fire is conducted as prescribed under Procedure, Rapid Fire, page 71, Small-Arms Firing Manual, with the exception that at all ranges the soldier assumes the firing position before the command "Ready" is given, and with the necessary substitutions for ranges and time limit.

TABLE 4.—*Rapid fire.*

All firing in the open, bayonet unfixed.

Range.	Time.	Shots.	Target.	Position.	Sight.
Yards.					
100	1 minute	10	0	Standing	Battle.
200	do	10	0	Kneeling	Do.
300	1 minute 10 seconds	10	0	Prone	Do.

Record.

TABLE 5.—*Slow fire.*

The firing from the trenches will be with bayonet fixed, rifle resting on the parapet. The firing in the open will be with bayonet unfixed.

Range.	Time.	Shots.	Target.	Position.	Sight.
Yards.					
100	No limit	5	A-4	Prone from prone trench	Leaf.
100	do	5	A-4	Standing in the open	Battle.
200	do	5	A-4	Standing from standing trench.	Leaf.
200	do	5	A-4	Kneeling in the open	Battle.
300	do	5	A-4	Standing from standing trench.	Leaf.
300	do	5	A-4	Prone in the open	Battle.

TABLE 6.—*Rapid fire.*

All firing in the open, bayonet unfixed.

Range.	Time.	Shots.	Target.	Position.	Sight.
Yards.					
100	1 minute	10	0	Standing	Choice of leaf or battle sight at all ranges.
200	do	10	0	Kneeling	
300	1 minute 10 seconds	10	0	Prone	

Total shots in short range practice, 180.

MID RANGE PRACTICE.

For all men who have completed short range practice.

Instruction.

TABLE 7.—*Slow fire.*

All firing in the open, bayonet unfixed.

Range.	Time.	Shots.	Target.	Position.
Yards.				
500	No limit	10	B	Prone.
600	do	10	B	Do.

Every effort will be made to teach the men the effect of wind, light, and temperature, and the value of small changes in elevation and windage.

Record.

TABLE 8.—*Slow fire.*

All firing in the open, bayonet unfixed.

Range.	Time.	Shots.	Target.	Position.
Yards.				
500	No limit	10	B	Prone.
600	do	10	B	Do.

Total shots in mid-range practice, 40.

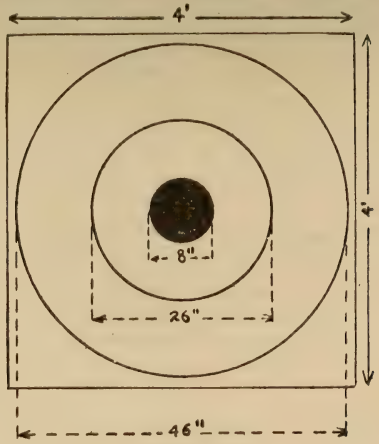
PRACTICE WITH TELESCOPIC SIGHTS.

After mid-range practice has been completed, the best eight enlisted shots of the company will fire as prescribed in paragraph 117, Small-Arms Firing Manual.

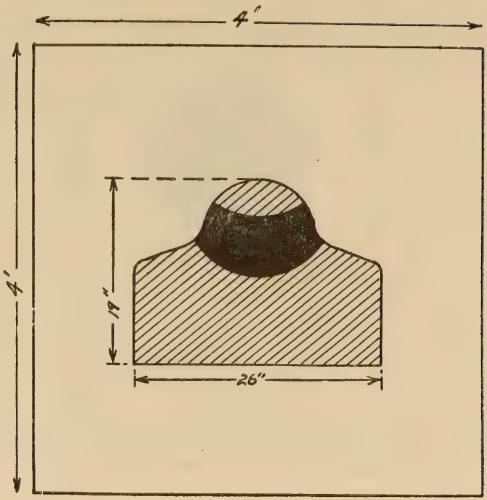
COMBAT PRACTICE.

Combat practice, individual and collective, will be fired by an organization after the completion of the known distance practice.

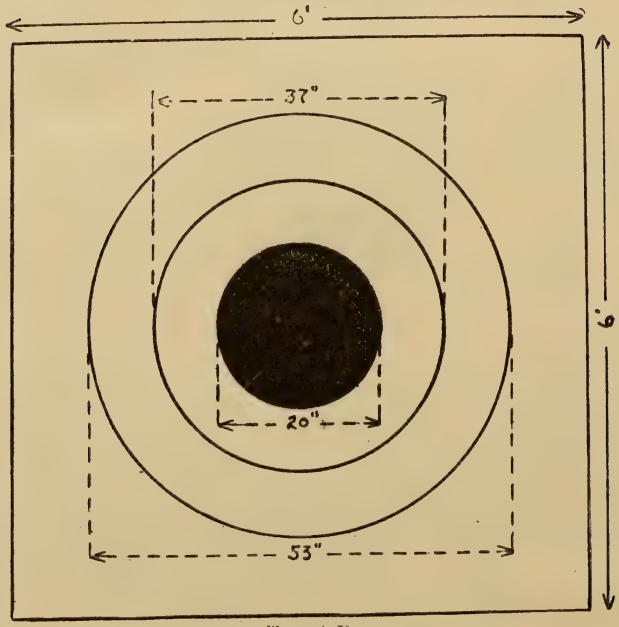
TARGETS USED IN SPECIAL COURSE C.



Target A-4.



Target O.



Target B.

COMBAT FIRING.

The one requisite to win the battle is intelligent teamwork. The one question that always presents itself on the battle field every minute of the time to every person, whether he be a general or a private, is, "What play has my team captain ordered, and how best may I act so as to work in conjunction with the other players so as to bring about the required result—team play?"

To the Infantry private this means—

First. **Prompt and loyal obedience to the squad leader.**—Every squad always has a team captain. If the squad leader is killed

or disabled, another player previously designated takes his place. If no one has been designated, the private with the longest service takes command. When the squad leader gives the command for a certain play, don't stop to think if the play is a good one, but do your best to carry out the play as ordered. A poor play in which every player enters with his whole heart (teamwork) will often win, while, on the other hand, the best play in which some of the players are skulkers and shirkers will probably fail.

Second. **Never lose touch with your squad.**—Every individual, as well as every unit, should always be acting under the control of some higher commander. This is necessary if there is to be any unity of action. Therefore, if you lose your squad, or it becomes broken up, join the first squad you can find, and obey your new squad leader as loyally and as cheerfully as you did your own.

Infantry approaches the battle field in column of squads. While yet several miles from the enemy's position the troops may come under artillery fire. On green men entering upon their first fight the sound of the projectile whistling through the air, the noise, flash, and smoke on the burst of the shell all produce a very terrifying effect, but old soldiers soon learn to pay little attention to this, as the danger is not very great.

As the troops advance the column breaks up into smaller columns, which form an irregular line with more or less intervals between, or take their positions in trenches prepared for them. Finally, a line of skirmishers is formed, either in or out of trenches.

At this stage the platoon becomes the important team. The platoon is the fire unit. On the individual efficiency of the men composing it, on their teamwork, and on the skill of the platoon leader depends the hitting ability of the firing line. The platoon commander gives the commands for firing. The squad leader repeats these commands. It is up to the private to see that he carries them out to the best of his ability in the manner that he has been instructed on the drill ground.

Firing is delayed as long as possible for three reasons, viz: (*a*) At the extreme ranges little damage can be done on the enemy, and ineffective firing always encourages him. (*b*) Halting to fire delays the advance, and the great object to accomplish is to close in on the enemy where you can meet him on better terms. (*c*) Plenty of ammunition will be required at the decisive stage of the action, and it is very difficult to send extra ammunition up to the firing line. Therefore **never fire until ordered to do so, and then never fire more than the number of rounds designated. Never fire after the command or whistle signal for "cease firing" or "suspend firing" is given.**

Ammunition in the bandoleers will ordinarily be expended first. Thirty rounds in the right-hand pocket section of the cartridge belt will be held as a reserve, to be expended only when ordered by an officer.

Soon, however, it will be necessary to halt and open fire on the enemy in order to cause him some loss, to make his riflemen keep down in their trenches, and to make them fire wildly. It is probable that at this time, and until you arrive much closer, you will not see any of the enemy to fire at. You may not see any trenches nor know just where the enemy is. Your officers, however, with their field glasses, and the messages that they receive, will know. Each platoon will be assigned a certain front to cover with its fire. Therefore **be careful to fix your sights at the designated range, and to fire only at the designated target.** This means teamwork in firing, which is one of the most important elements to success.

You should be very careful about setting your sights for the designated range. You will probably be greatly excited, and under much physical exertion, and the tendency will be not to take much pains about doing this little operation. But you must remember that if your sights are not set correctly, you might just as well not be there at all for all the good you are doing, for you are causing no damage to the enemy, nor are you helping out your comrades any. Your shots are not preventing the enemy from firing coolly at you.

Some good shots will often doubt the platoon commander's estimate of the range. They think that the range is longer or shorter than that given them, and they want to set their sights accordingly. This should never be done. Suppose the range has been given wrong, and of your own volition you set your sights at what happens to be the correct range. The platoon commander, looking through his glasses, sees a few shots striking in the dust close to the enemy's position and he thinks he is all right, and goes on firing with the sight elevation he has given to his platoon. But those few shots which he saw were your shots, and not the shots of the majority of the platoon. The platoon's shots are going wild. The few shots which you fire will never have any effect on the enemy, and you are simply confusing your platoon leader, and entirely nullifying the effect of your platoon fire. That is not teamwork.

Your platoon target will be given to you between certain limits. You must see these limits, and clearly understand them. **If you do not know where to fire do not fire at all.** It is most necessary that the **whole** of the enemy's line within the sector assigned to your platoon be covered with fire. There must be none of it which is not covered with fire, and where the individuals of the enemy occupying that portion could fire coolly at you. Therefore **always fire at that portion of the designated target which corresponds with your own position in your own platoon.** That is, if you are the right skirmisher in your platoon fire at the two or three men of the enemy which you see on the right of your sector. If you are center skirmisher, fire at the center of the designated target. Do not disregard spots in the target where you can see no enemies. They may be there, nevertheless, firing from behind a bush where you can not see them. All portions of the hostile line must be covered with fire.

TARGET DESIGNATION.

Owing to smokeless powder, neutral-tinted uniforms, the prominence given to the concealment of trenches, the use of cover, and suitable backgrounds it may be very difficult or im-

possible to see the enemy or even to recognize the particular target or aiming point which the platoon commander is endeavoring to show to the members of his platoon. Not only must one object be pointed out, but the extent of the line which is to be the target for the platoon must be clearly described so that every private in the platoon will clearly recognize it and understand its limits. A poor or faulty description is confusing, all of the men will not recognize the target, and there will consequently be a delay in opening fire. Bad description may result in a part or the whole of the platoon mistaking the target, the outcome being a total loss of fire effect on account of firing at the wrong target. Part of the line may become confused and not fire at all.

Facility in target designation and recognition requires a simple system of describing targets. Target designation within the platoon implies an ability on the part of the platoon leader to transmit to his men a description of the target in such a manner and in such words that they will quickly see it, and will equally distribute their fire within the sector assigned to them, not slighting the less visible parts.

In general, targets, with reference to their designation, will fall under the following heads:

(1) Those that stand out so plainly that there can be no doubt as to what and which target is meant.

(2) Those that are plainly visible but about which there might be some misunderstanding.

(3) Those which are partially visible but which, on account of backgrounds or other conditions, are difficult to pick up.

(4) Those which can be seen only with field glasses.

The following methods are to be used in designating these four different classes of targets, and these methods should be thoroughly understood by every rifleman:

CLASS 1.

SYSTEM.	EXAMPLE.
1. Announce the range.	"Range 300."
2. Announce the objective.	"That line of Germans."

Class 2.

With this class of targets the "horizontal-clock system" is used to designate the direction in which to look for the target. In using the horizontal-clock system, the firer or platoon commander considers himself to be at the center of the clock dial, 12 o'clock being his true front—i. e., on a line perpendicular to the firing line. Six o'clock would then be to his rear, 9 o'clock to his left, and 3 o'clock to his right. Figure 10 illustrates the horizontal-clock system and shows a target at 1 o'clock. When the platoon commander designates a target in a certain direction by this system, all the men should look in the indicated direction and pick up the target from their leader's description of it.

SYSTEM.	EXAMPLE
1. Announce the range. (If sights are to be set allow the necessary time.)	"Range 650."
2. Announce direction by horizontal-clock system.	"Target at 11 o'clock."
3. Announce objective.	"A troop of Cavalry dismounted."

Class 3.

This system is used against small or indistinct targets. The vertical-clock system is used, either singly or in combination with the horizontal-clock system. It is often necessary first to designate a reference point—that is, a prominent object near the target which can be clearly seen by all and which is easily described. This reference point is pointed out to the men by designating its direction by the horizontal-clock system and describing it. Thus, "Reference point that stone house at 1 o'clock." All men having seen the reference point, the direction of the target from it is pointed out by means of the vertical-clock system, a vertical-clock face being imagined centered on

the reference point, and the men, looking along the line leading from the clock center (reference point) toward the designated o'clock, see the target. (See fig. 11.)

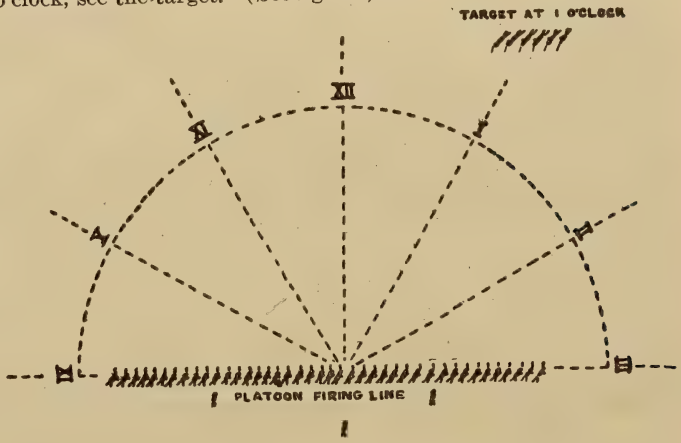


FIG. 10.—Horizontal-clock system.

SYSTEM.	EXAMPLE.
1. Announce the range. (If sights are to be set, allow the necessary time.)	"Range 800."
2. Announce the general direction of the reference point.	"Reference point at 2 o'clock."
3. Designate as a reference point the most prominent object in the zone indicated.	"A stone house with two chimneys."
4. Announce the position of the target with respect to the reference point.	"Target at 3 o'clock."
5. Announce the objective.	"A hostile patrol of 4 men."

It often becomes necessary to designate distance on the landscape in order that the men may see the target, or in order to give them the extent or limits of the platoon sector at which to fire. The best method of doing this is by means of the rear-sight leaf. If the eye be held 14 inches in rear of the rear

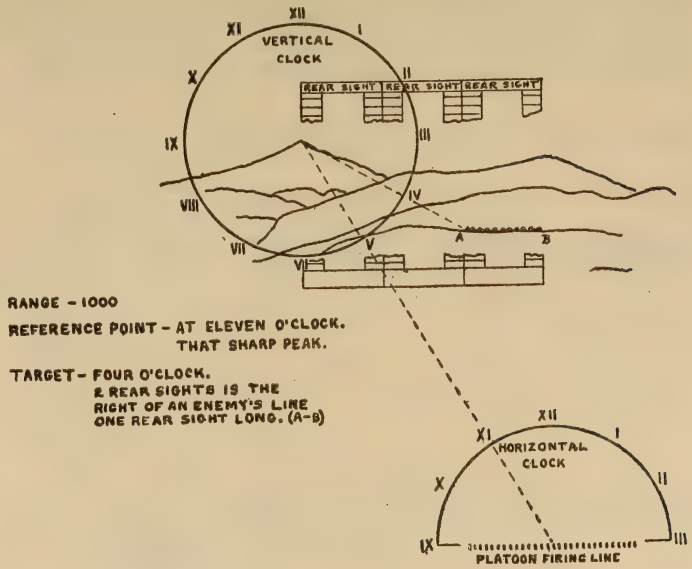


FIG. 11.—Target designation with horizontal clock, vertical clock, and rear sight, used in designating indistinct targets.

sight, then the distance or width on the landscape which the rear sight covers when superimposed on the view is called "one rear sight." In order to get this distance of 14 inches the eye should be held, in the case of the Model 1903 rifle, just above the comb of the stock, and in the case of the 1917 rifle,

just above the butt plate. (See fig. 12.) We may thus designate a very faintly seen target, as shown in figure 11

CLASS 4.

This class of targets can not be seen with the naked eye. The platoon commander selects an object in front of or behind it,

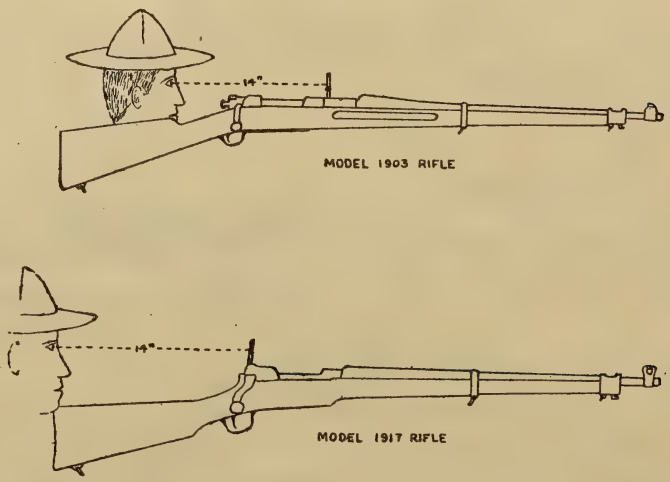


FIG. 12.—Method of determining "One Rear Sight" in target designation.

designates this as the aiming target, and directs a sight setting which will carry the cone of fire into the target. Thus a platoon's target might be a line of the enemy in a cornfield. The line can be picked out only by the officers with their field glasses. At the opposite side of the field is a fence. The fence can be easily seen and is 1,000 yards away. The enemy's line

is at 800 yards. The platoon commander designates the fence immediately back of the line as the aiming point and gives the range as 800. The men aim at the fence, but the sheaf of bullets fall on the enemy's line in the cornfield.

The soldier should have firmly impressed on his mind the system of describing firing lines. The term "The right of the enemy's line" or "The enemy's right" means his right facing us as he would designate it; that is, the end to our left as we face the enemy's line. "The right of our line" means our own right, on our right hand as we face to the front. These terms should never be confused.

HOW TO USE THE SCORE BOOK.

The soldier can never expect to shoot well until he knows his rifle, and he can never know it unless he keeps a record. He will fire at at least three different distances, under many weather conditions, and perhaps with different lots of ammunition. No man can keep all these various elevations, windages, zeros, etc., in his head. He must keep a record, and this book is issued to the soldier to keep this record in. It should be carefully used and all the various data recorded, so that at any time the soldier may be able to so set his sights and fire that he will make a hit with the first shot.

Despite its name, this book is not intended to keep the score alone in. The score is the least important thing, because the official scorer on the rifle range always keeps this. The important things to note on the score sheets are:

(*a*) The elevation and windage used for each shot at each range.

(*b*) Where each shot is called; that is, where the marksman expects it to strike the target.

(*c*) Marks on the target diagrams showing where each shot struck; that is, where it was marked.

(*d*) The wind and weather at the time of firing each shot.

It will be noticed that there are score sheets for each of the different classes of fire, and for each range. Selecting the proper score sheet, just before we go to the firing point, we record on it the range, the number of the rifle, the date of loading of the ammunition used, and the weather conditions, noting particularly the direction and approximate velocity of the wind. We then make our calculations for sight adjustment for the first shot, set our sights accordingly, and record the exact sight setting in the columns provided for that purpose. All this should be done a few minutes before it is our turn to fire.

We will now take, for example, the case of a soldier actually firing at 500 yards, slow fire, and show how he should use and keep his score book. Follow the case carefully on the sample score sheet. The soldier, as he comes to the firing point, places his ammunition near his right hand where it will not get in the dust or dirt (if it is not in his belt). He adjusts the gun sling to his arm, assumes the correct firing position in a comfortable spot where he can see the target clearly, and places his score book and pencil near his right hand, where he can easily use it without moving around. He has previously made the preliminary entries in the book, so he does not have to take up valuable time to do this now. He looks, however, to see that the weather conditions, particularly the wind, have not changed since he recorded them. He has never fired this rifle at 500 yards before, therefore he has set his sights at "500" for elevation, and so recorded it. He estimates the wind as 8 miles per hour from 3 o'clock, and referring to the table of wind allowances he sees that this will require a correction of 1 point, or 20 inches. If he is using the Model 1903 rifle, he records in the column "W. G." the figures "1–R," meaning 1 point right wind. If he is using the Model 1917 rifle, he records in this column the figures "20–R," meaning that he will endeavor to hold 20 inches to the right of the center of the bull's-eye. In the column for "Wind" he places the figures "3K8M," meaning 3 o'clock, 8 miles per hour. He loads his rifle and is ready for his first

shot. Just as he fires it he is careful to note where the sights were aligned on the target at the instant that the rifle was discharged. That is, he "calls his shot." He records this call in the column provided for it. It will be noticed that the squares in this column have cross lines. If the shot is called a "bull"—that is, the sights were aligned absolutely correct at the instant before discharge—the soldier simply places a dot at the intersection of the cross lines. If he calls it at "3 o'clock," he places the dot on the horizontal line to the right of the intersection, and so on.

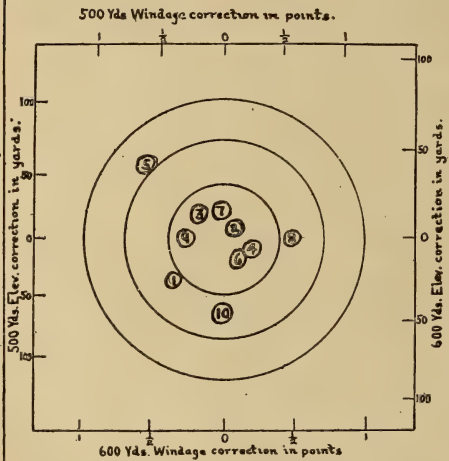
In this case we will say that he calls his shot a "bull," and so records it. He now waits until the target is marked. In this case we will say that the shot is marked a "4" at 7.30 o'clock, just on line with the lower and left-hand edges of the bull's-eye. With his pencil the soldier makes a little circle on the target diagram just where the shot was marked, and in this circle he places the figure "1" to denote just where the first shot struck the target. Now, notice the corrections on the left hand and top of the target. From these it will be evident that the sight should be given 50 yards more elevation, and the wind gauge moved one-half point more to the right (or with the Model 1917 rifle, aim taken 10 inches more to the right.) The soldier makes these corrections in his sight setting and records them on the line provided for the second shot and in the proper columns. There is no change in the wind, so he simply makes a dash in that column. He then fires his second shot. This also is called a "bull" and so recorded in the "Call" column. When this shot is marked it is seen that it has struck near the center of the bull's-eye. It is so marked on the target diagram. The rifle is now sighted correctly, and the soldier continues to fire with the sights thus adjusted. Everything goes all right until the fifth shot. This he accidentally pulls a little to the left and a little high, and so records it in the "Call" column. Sure enough, when this shot is marked it is a "3" at 10.30 o'clock. The sixth and seventh shots are also pulled correctly. The eighth shot,

500 AND 600 YDS. SLOW FIRE

500 Yds. Slow Fire

No. of rifle 178176 Ammunition FA 8/13/17

Date 11/10/17 Place Camp Meade, Md.



No.	Elev.	W.G	Wind	Call	Val.	Remarks
1	500	1-R	3K8M		4	
2	550	1½R	—		5	
3	—	—	—		5	
4	—	—	—		5	
5	—	—	—		3	
6	—	—	—		5	
7	—	—	—		5	
8	—	—	—		4	Wind dropped
9	—	1R	—		5	
10	—	—	—		4	
				Score.....	45	

Wind 8 miles 3 o'clock

Light Sunny

Weather Clear

however, is a "4" to the right of the bull's-eye. The soldier wonders at this because he called it a "bull," until he happens to notice that the wind has fallen off slightly and is not blowing so strongly as it was. For his ninth shot, therefore, he brings his wind gauge back to "1–R" (one point right, or 20–R with the 1917 rifle.) The ninth shot is another bull's-eye, but the tenth shot was called low and strikes just below the bull's-eye. His total score for the 10 shots is 45.

This score sheet now gives a complete record of the rifleman, the rifle, the ammunition, and the weather, and forms the best guide for the soldier when he comes to fire at 500 yards again. With the same rifle and ammunition he should, the next time, be able to set his sights so as to strike the bull's-eye with the first shot. He knows that with the ammunition he is using his normal elevation for 500 yards is "550" and not "500," and that most probably if there is no wind blowing he can set his wind gauge at zero.

The slow-fire sheets for the other ranges are used in a similar manner. The rapid-fire sheets sufficiently explain themselves. Place a small cross on or below the target diagram to show just where the aim was taken and record this under "Aiming point." Record in the column of "Remarks" anything that it is desired to make record of. In recording the shots on the target diagram as they are marked, simply place a dot for each shot. Notice where the "group" comes and make the necessary corrections for the next score, if necessary, changing the sights according to the table of sight corrections.

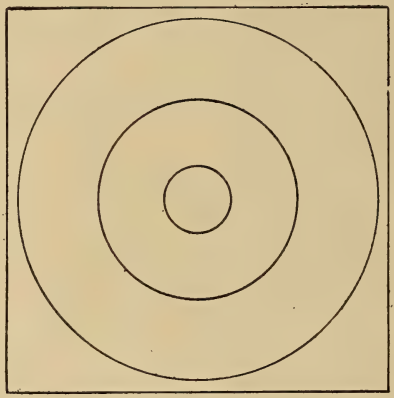
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
				Score....		

Wind_____

Light_____

Weather_____

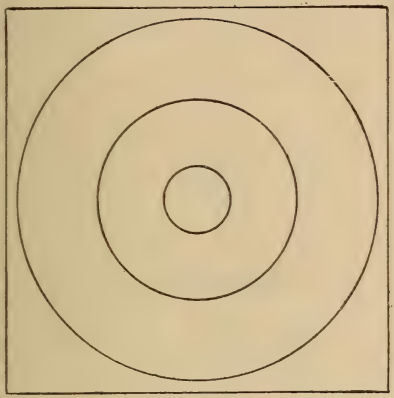
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Target 4 feet square.
Bullseye 8 inches in diameter

Date _____ Place_____



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

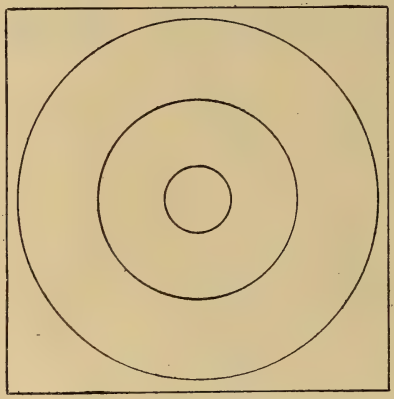
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

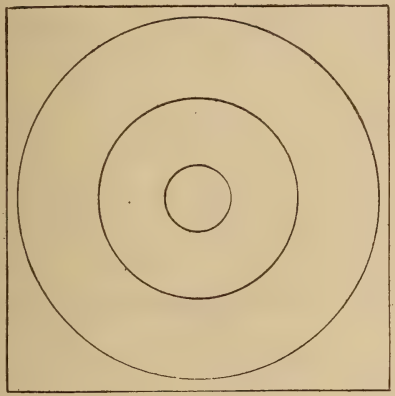
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Target 4 feet square.
Bullseye 8 inches in diameter

Date _____ Place_____



No	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

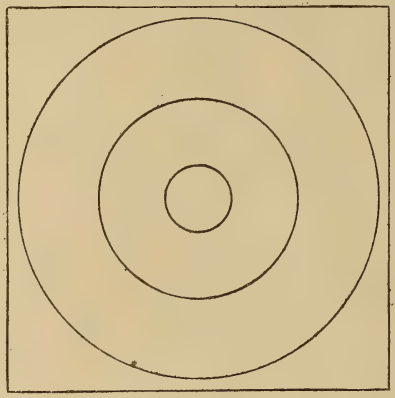
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

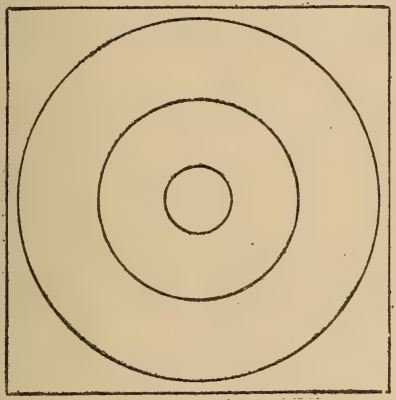
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

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Weather_____

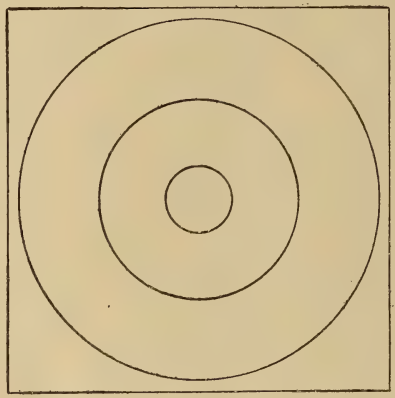
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

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Weather_____

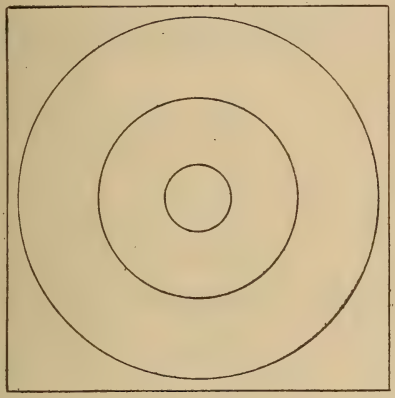
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call		Val.	Remarks.
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				Score....			

Wind_____

Light_____

Weather_____

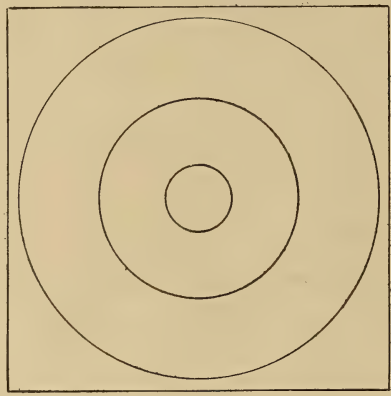
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

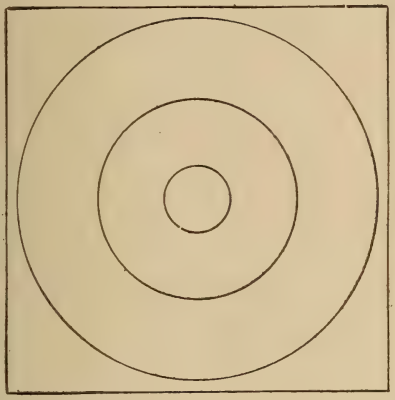
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

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Weather_____

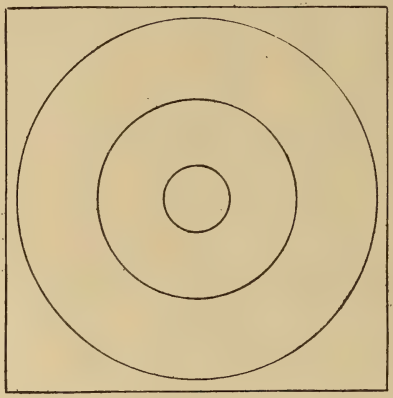
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call		Val.	Remarks.
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				Score....			

Wind_____

Light_____

Weather_____

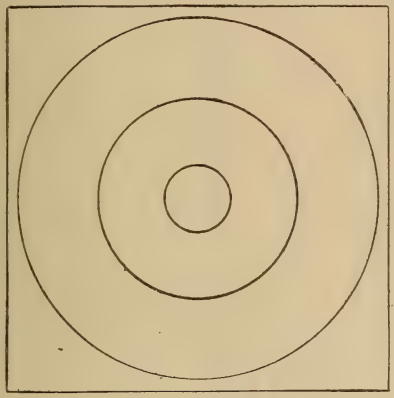
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



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				Score....		

Wind_____

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Weather_____

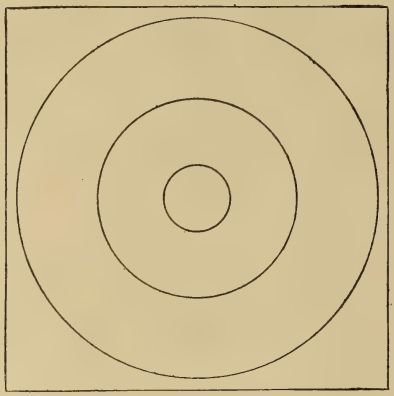
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Target 4 feet square.
Bullseye 8 inches in diameter

Date _____ Place_____



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

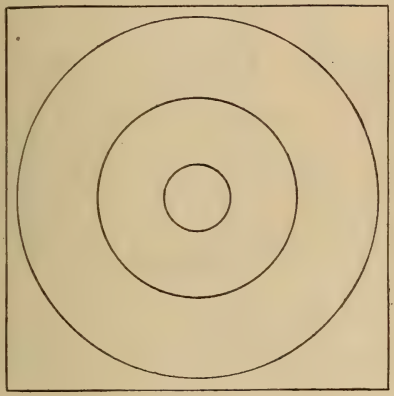
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



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				Score....		

Wind_____

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Weather_____

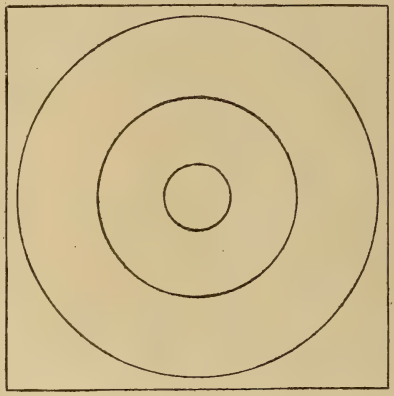
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Target 4 feet square.
Bullseye 8 inches in diameter

Date _____ Place_____



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

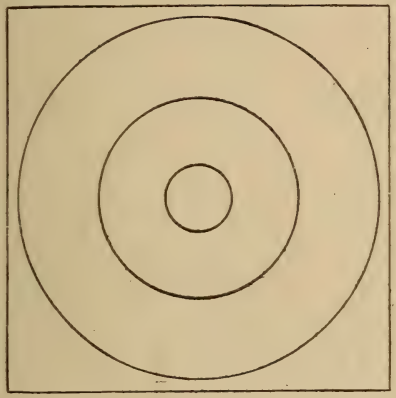
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

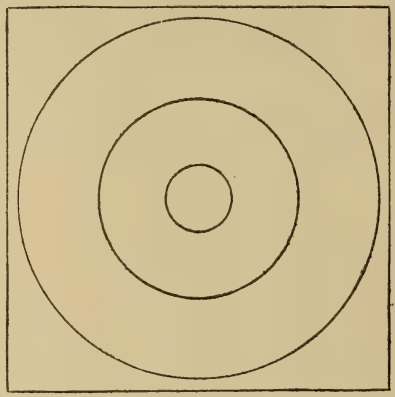
Light_____

Weather_____

100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

Target 4 feet square.
Bullseye 8 inches in diameter



Wind_____
Light_____
Weather_____

No. of rifle_____ Ammunition_____

Date _____ Place_____

No.	Elev.	W.G.	Wind	Call		Val.	Remarks.
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				Score....			

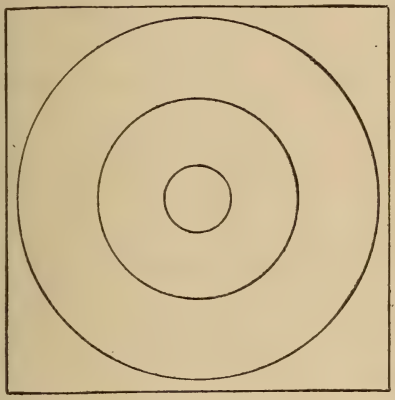
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date_____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

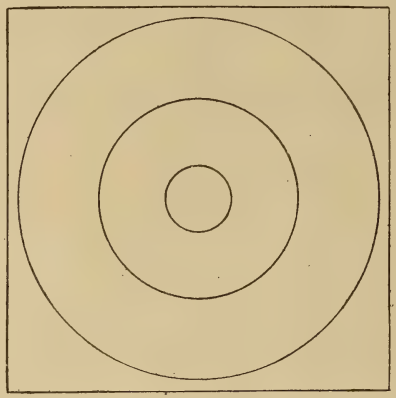
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

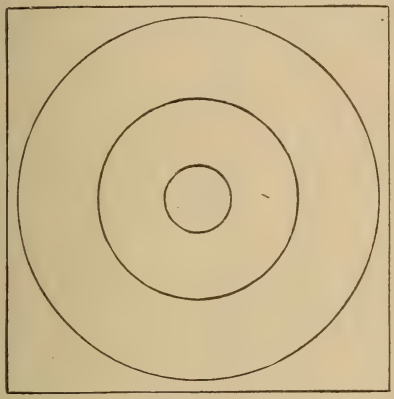
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

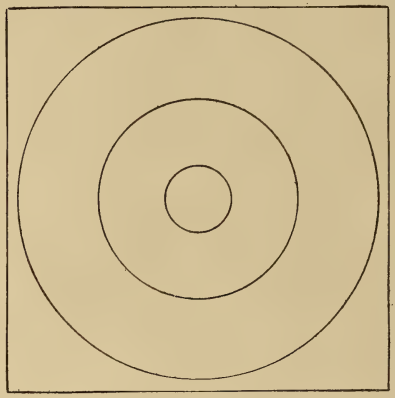
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Target 4 feet square.
Bullseye 8 inches in diameter

Date_____ Place_____



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

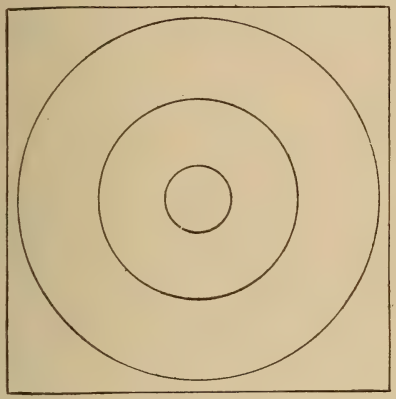
100, 200 AND 300 YDS. SLOW FIRE

____Yds. Slow Fire

No. of rifle_____Ammunition_____

Date _____Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

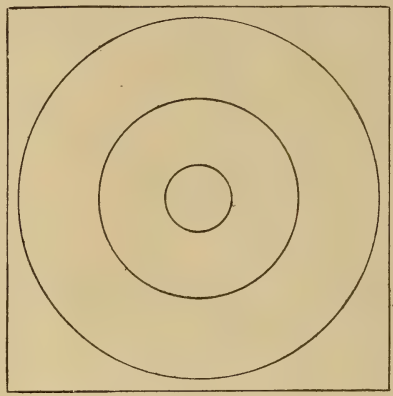
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

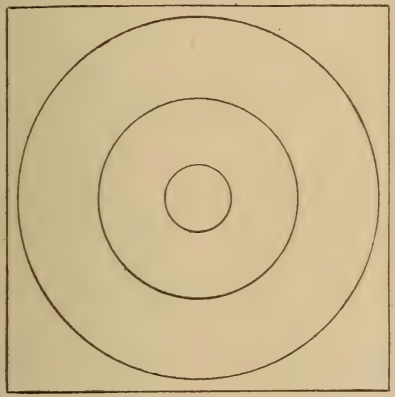
100, 200 AND 300 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of rifle_____ Ammunition_____

Date _____ Place_____

Target 4 feet square.
Bullseye 8 inches in diameter



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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				Score....		

Wind_____

Light_____

Weather_____

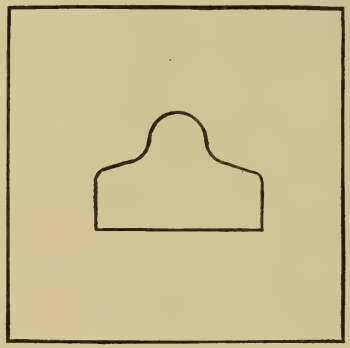
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

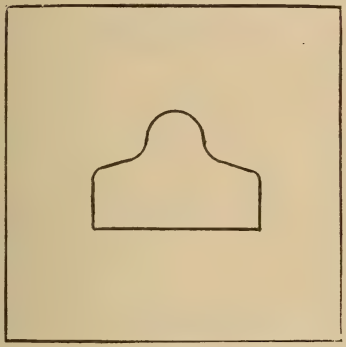
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

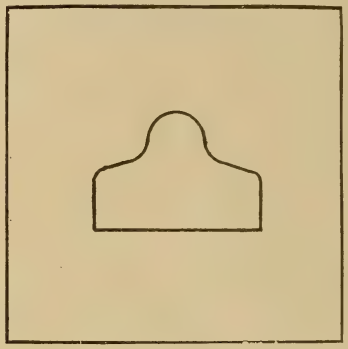
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

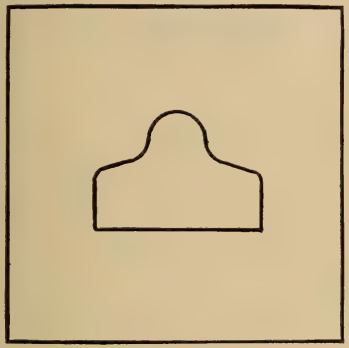
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

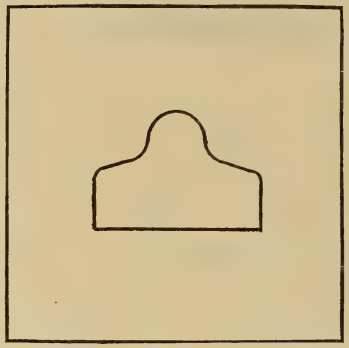
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

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Weather_____

Score_____

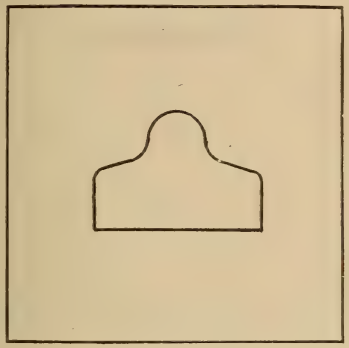
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

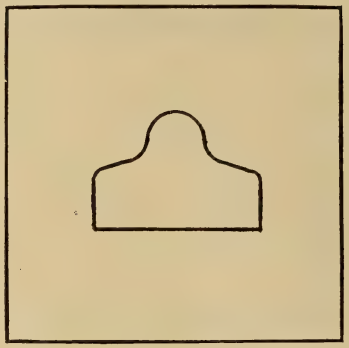
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

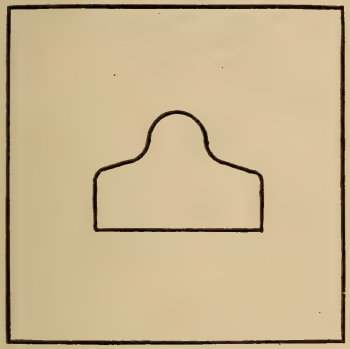
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

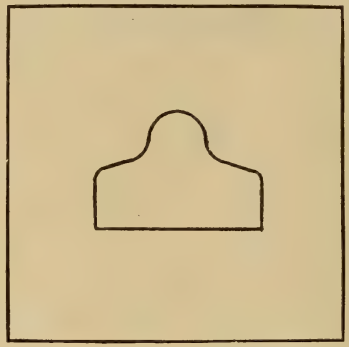
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

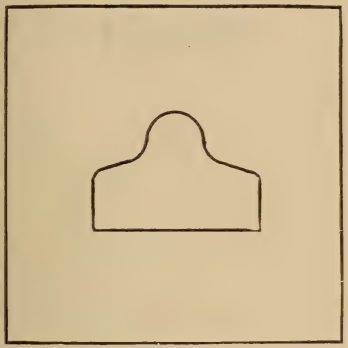
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

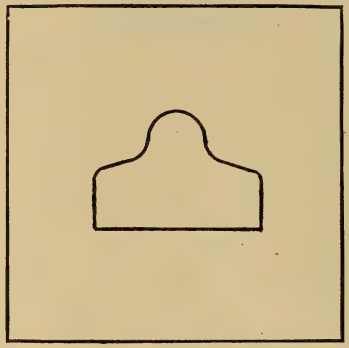
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

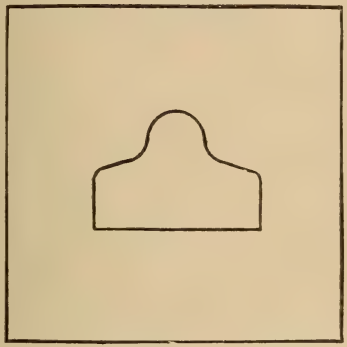
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

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Weather_____

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100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

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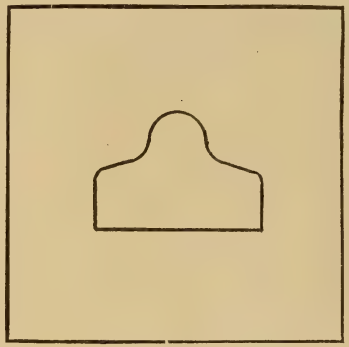


Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

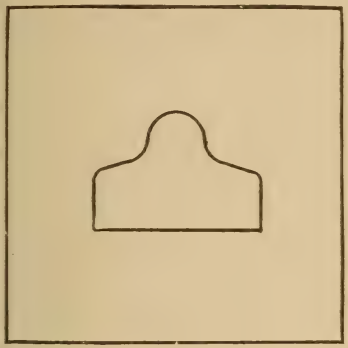
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

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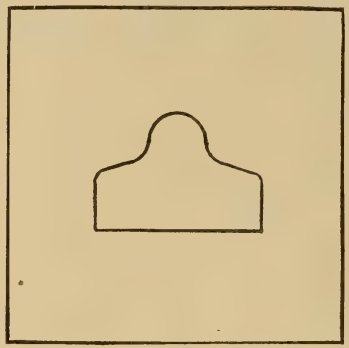
_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

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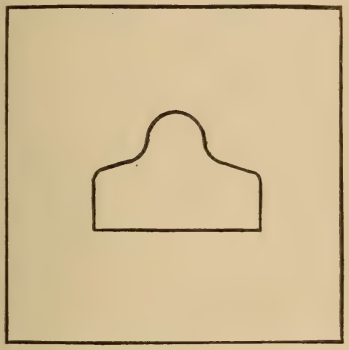
_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

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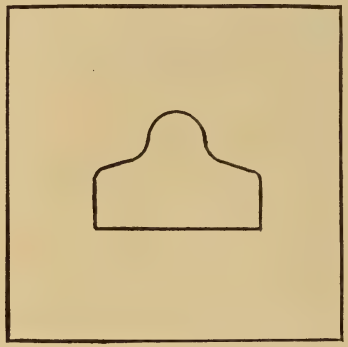
_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

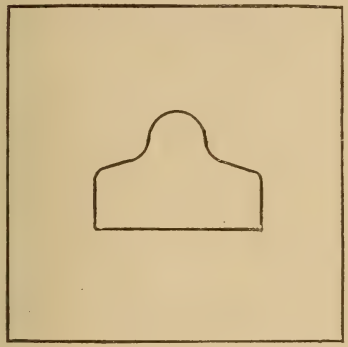
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

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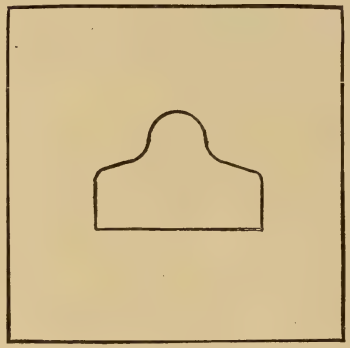
_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

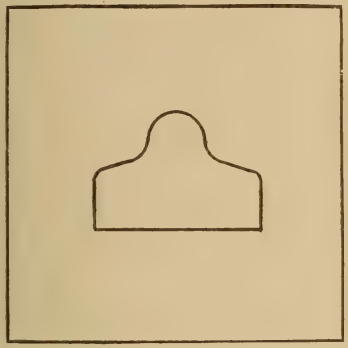
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

Wind_____

Light_____

Weather_____

Score_____

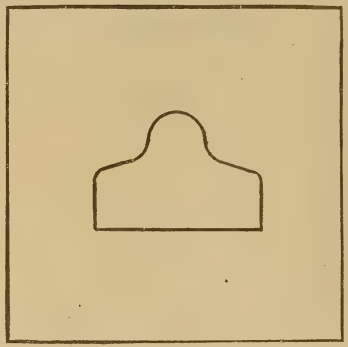
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

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Light_____

Weather_____

Score_____

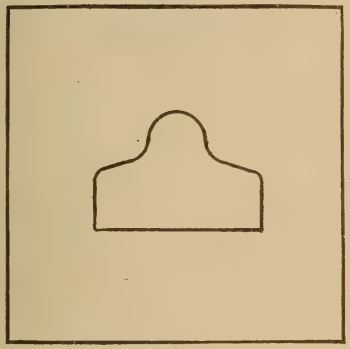
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

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Weather_____

Score_____

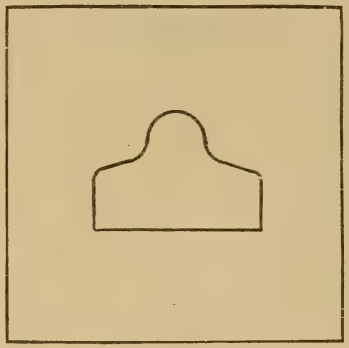
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

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Score_____

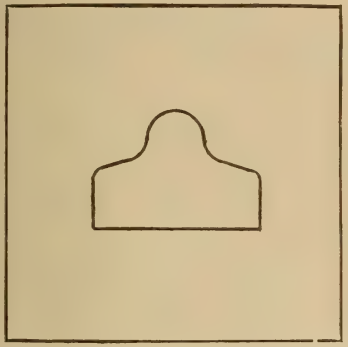
100, 200 AND 300 YDS. RAPID FIRE.

_____ Yds. Rapid Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____

—Remarks—



Aiming Point_____

Elevation_____

W.G._____

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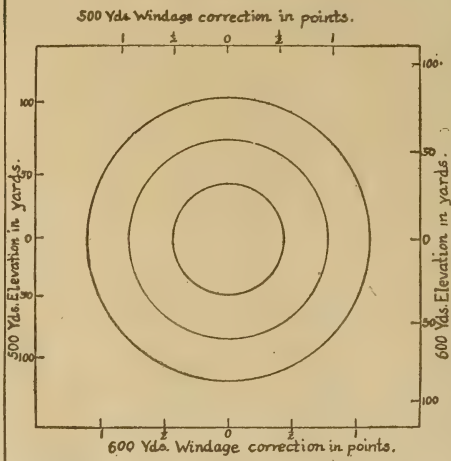
Score_____

500 AND 600 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____



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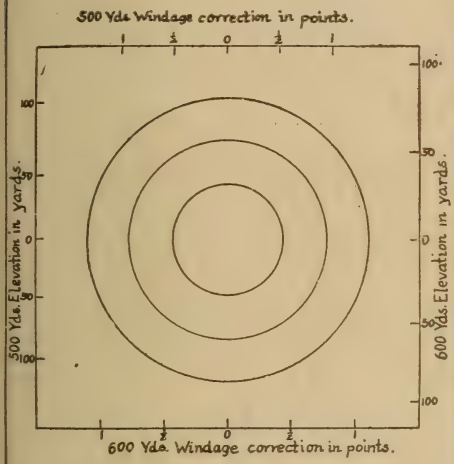
500 AND 600 YDS. SLOW FIRE

_____ Yds. Slow Fire

No. of Rifle_____ Ammunition_____

Date_____ Place_____



No.	Elev.	W.G.	Wind	Call		Val.	Remarks.
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500 AND 600 YDS. SLOW FIRE

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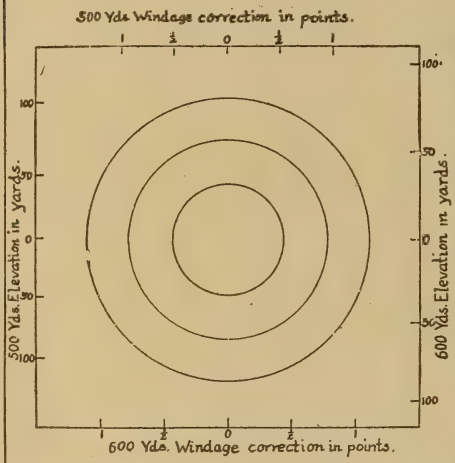
No. of Rifle_____ Ammunition_____

Date_____ Place_____



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500 AND 600 YDS. SLOW FIRE

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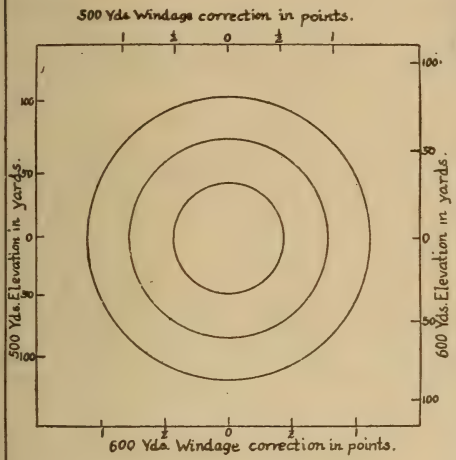
No. of Rifle_____ Ammunition_____

Date_____ Place_____



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Wind _____

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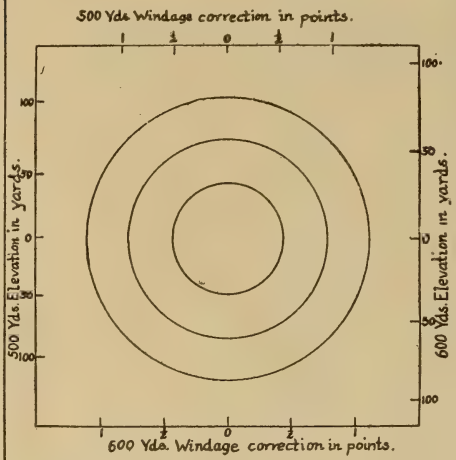
No. of Rifle_____ Ammunition_____

Date_____ Place_____



No.	Elev.	W.G.	Wind	Call		Val.	Remarks.
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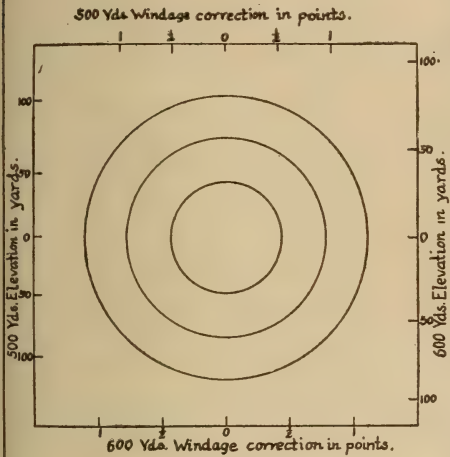
No. of Rifle_____ Ammunition_____

Date_____ Place_____



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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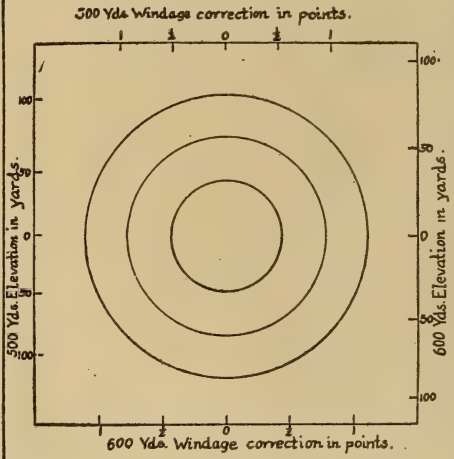
Date_____ Place_____



No.	Elev.	W.G.	Wind	Call		Val.	Remarks.
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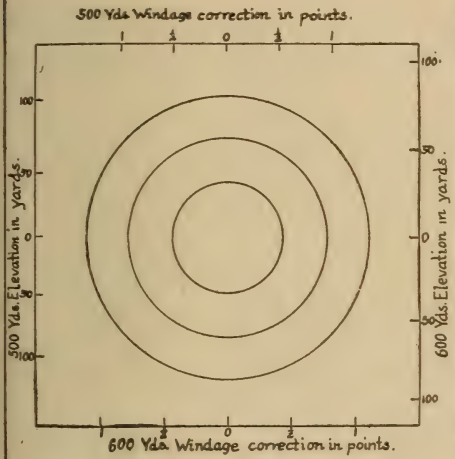
Date_____ Place_____



No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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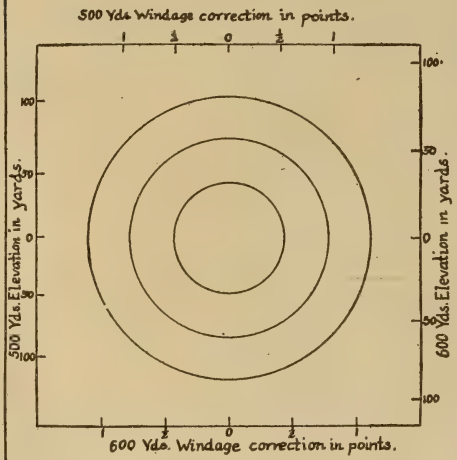
Date_____ Place_____



No.	Elev.	W.G.	Wind	Call		Val.	Remarks.
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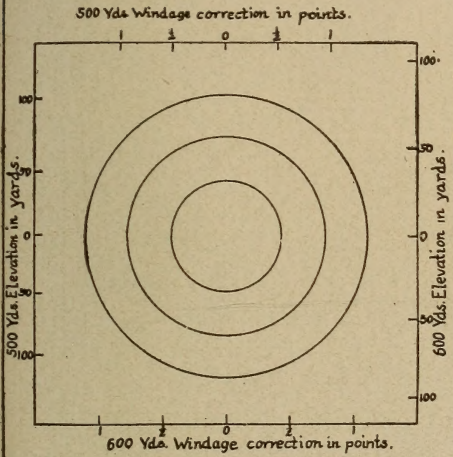

No.	Elev.	W.G.	Wind	Call	Val.	Remarks.
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Score.....						

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